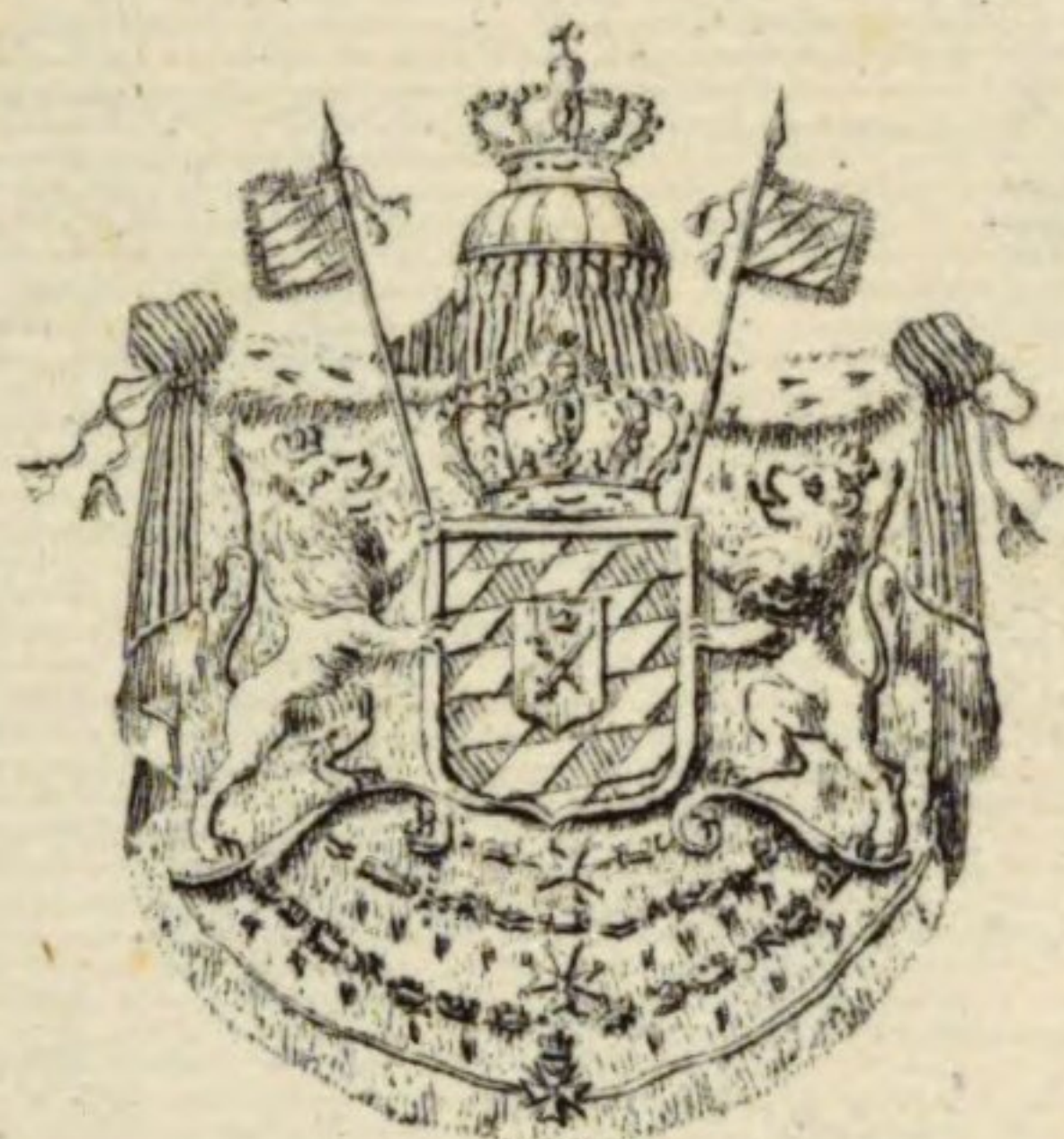




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EXOTIC BOTANY:

CONSISTING OF

COLOURED FIGURES,

AND

SCIENTIFIC DESCRIPTIONS,

OF SUCH

NEW, BEAUTIFUL, OR RARE PLANTS

AS ARE WORTHY OF CULTIVATION IN THE
GARDENS OF BRITAIN ;

WITH

REMARKS ON THEIR QUALITIES, HISTORY, AND
REQUISITE MODES OF TREATMENT.

BY

JAMES EDWARD SMITH, M. D. F. R. S. &c. &c.

PRESIDENT OF THE LINNEAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F. L. S.

HONORARY MEMBER OF THE PHYSICAL SOCIETY OF GÖTTINGEN.

“ Another Flora there, of bolder hues,
And richer sweets, beyond our garden pride,
Plays o’er the fields, and showers with sudden hand
Exuberant spring.” *Thomson.*

VOL. I.

LONDON:

PRINTED BY R. TAYLOR AND CO., BLACK HORSE COURT, FLEET STREET ;

And sold by JAMES SOWERBY, at No. 2, Mead Place, Lambeth ; by
J. WHITE, Fleet-Street ; JOHNSON, St. Paul’s Church-yard ;
SYMONDS, Pater-noster-row ; and by all Booksellers.

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305.D.

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MDCCLX.

PREFACE

TO

WILLIAM ROSCOE, ESQ. F.L.S.

LIVERPOOL.

Dear Sir,

WHEN, in your delightful retirement at Allerton, I felt transported to the villa of your own Lorenzo, I was agreeably surprised to find how large a portion of your attention Scientific Botany had shared, amid your ardent devotion to the Historic Muse. Let me thus remind you of that time, so grateful to my recollection, and which, if I may judge by subsequent transactions, you do not wish to forget. Long had I been anxious to know the Historian of the Medici, but I now wish far more to cultivate and preserve the regard of a Roscoe.

Allow me to subscribe myself,

Dear Sir,

Your obliged and affectionate friend,

J. E. SMITH.



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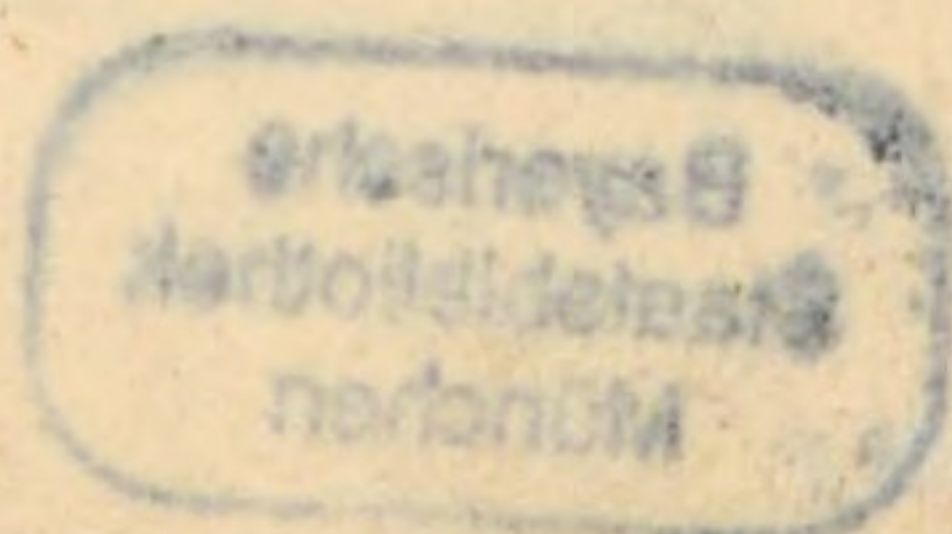
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PREFACE.

SEVERAL periodical publications, illustrative of exotic plants, have been at different times undertaken in this country, and some have been continued with great success; yet none of them can keep pace with the botanical riches daily flowing in upon us.

The chief aim of the present undertaking is not to cooperate with those publications which only describe the plants actually blossoming in the English gardens; still less is it to interfere or contend with such pleasing and useful works. It will rather be the object of our labours to introduce to the curious cultivator plants worthy of his acquisition from all parts of the globe, and to teach those who have correspondents abroad what to inquire for. Some opportunities also may fall in our way of making known the flowers of plants, which have long been cultivated among us without producing fructification. Hence it will appear how far they are worthy of that continued

attention, which they have as yet so ill repaid. Yet these are not our only intentions. Any new or rare plants; any which have not been hitherto well delineated in their native colours; in short, any thing worthy to gratify the botanical taste now so prevalent, will be the object of this work.

For abundance of most interesting materials we can be at no loss. Not only the stores which Mr. Sowerby and myself have been from time to time accumulating, and which we have hitherto found no successful mode of publishing, but many other treasures are at our command. Mr. Lambert has most liberally intrusted to us his collection of New Holland sketches, all the original specimens of which, chiefly collected by Dr. White at Port Jackson, have long been in my herbarium. Captain Hardwicke, so well known by his interesting travels in India, unsolicited and without reserve has offered me the use of his immense collection of botanical drawings, the most accurate and beautiful ever brought to England. Above all, Sir Joseph Banks, with that liberality which no one has more constantly witnessed in him than myself, has freely offered, out of the abundance of his riches, any thing which may be

desirable for this publication, and for which he has no other particular destination. The favours of various friends besides, will be mentioned in the course of the work.

In the descriptions I shall endeavour to reconsider all that has been done before, and to define new objects with precision. The language will be entirely English, progressively altered or improved by the naturalization of any words that experience may show to be eligible. Some terms which in the progress of our *English Botany* have scarcely become perfectly naturalized, may in this work entirely lay aside their Latin construction. Of Mr. Sowerby's abilities for his share of the task it would be improper, as well as superfluous, to express any thing here; but it would be ungrateful in me not to say that, after so many years' experience, I enter on a new work, assisted by his pencil, with the most perfect confidence and satisfaction.

J. E. SMITH.

Norwich,
Dec. 1. 1804.

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EDWARD SMITH.

Above all, Sir Joseph Banks, with that

Dec. 1. 1804.



Humea elegans.



Adiantum

TAB. 1.

H U M E A elegans.

*Rose-coloured Humea.**SYNGENESIA Polygamia-æqualis.*

Receptacle minute, glandular. *Down* none. *Calyx* loosely imbricated, membranous, pointless. *Florets* about 3, tubular. *Antheras* awned.

SPECIMENS of this elegant plant have long since been sent to England from the neighbourhood of Port Jackson, New South Wales; but its appearance was altogether so new and extraordinary, that no botanist could determine its genus, or even its natural order. Its proper class in the Linnæan System was not suspected till the summer of 1804, when Lady Hume fortunately had several plants blossom in her choice collection at Wormleybury, Herts, from seeds communicated by the Right Honourable Sir Joseph Banks. The beauty of its wide-spreading drooping panicle, and innumerable shining rose-coloured flowers, which sometimes vary to white, render this plant a great acquisition to the Green-House, in which it succeeds without any peculiar attention. It is moreover desirable for its fragrance, which, though much too strong in the leaves, partakes, in the panicle, of the odour of the Hautboy Strawberry, with some resemblance to the Red Cedar wood. The flowers begin to expand in July, and continue through the autumn. The root is probably annual; but this point remains, as yet, undecided.

The stem is herbaceous, round, filled with spongy pith, rough (like the leaves) with short rigid viscid pubescence. Leaves alternate, sessile, lanceolate, acute, slightly waved at their edges, and clasping the stem by their heart-shaped base. The upper ones gradually diminish into bracteas. Panicle drooping, very much branched, composed of innumerable scattered alternate drooping flowers on capillary stalks. Each stalk is accompanied by a small bractea at its base, and clothed with alternate, loosely imbricated, membranous scales, of a shining rose-colour, with a green rib or keel. These scales are gradually larger towards the flower; and the uppermost,

which are much the largest, constitute the calyx, containing 2 or 3 florets. The receptacle is small, glandular, but destitute of scales or bristles. Florets regular, tubular, all perfect and fertile; their tube cylindrical, glandular; limb campanulate, purplish, with 5 equal revolute segments. Antheras 5, united, crowned with 5 sharp points. Germen oblong, glandular. Style cloven. Stigmas spreading, capitate. Seed oblong, without any crown or wing.

This genus should be placed near *Eupatorium* in the Linnæan System. It is unquestionably distinct from all hitherto described. We have named it after the accomplished Lady to whom we are obliged for its introduction, and who, for her botanical taste and knowledge, as well as the number of new plants she has introduced into England, and which she is always in the most liberal manner disposed to communicate, well deserves such a compliment.

Tab. 1. exhibits a part of the panicle, with a leaf, of the natural size. A magnified calyx and floret, with a more enlarged dissected floret, are subjoined.





Dillenia speciosa

Dec. 1 1804. Published by J. Sowerby, London.



Callitriche speciosa
and the leaves of the same tree

TAB. 2, 3.

DILLENIA speciosa.

Great Dillenia.

POLYANDRIA Polygynia.

Calyx inferior, of 5 coriaceous permanent leaves. *Petals* 5.

Capsules several, compressed, many-seeded, ranged circularly round a pulpy receptacle.

Leaves elliptic-oblong, simply serrated. Flowers solitary.

Stigmas lanceolate.

Dillenia speciosa. *Thunb. Tr. of Linn. Soc. v. 1. 200.*

Willden. Sp. Pl. v. 2. 1251.

D. indica. *Linn. Sp. Pl. 745.*

Syalita. *Rheed. Malab. v. 3. 39. t. 38, 39.*

OF all the tropical trees this is one of the most magnificent. Rheede informs us that it rises in the woods of Malabar, where it is very frequent, to the height of 40 or 50 feet, with an extremely thick stem, covered with a thick scaly bark, which when wounded discharges great abundance of an astringent watery fluid. It ripens fruit in December and January, beginning to bear about the fourth year of its age, and continuing in vigour for fifty years or more.

Linnæus derived his knowledge of this plant entirely, perhaps, from the excellent figure and description in the writer just quoted; for he never possessed, nor probably ever saw, a specimen, except what grew from seed in the garden of Clifford, and scarcely survived three weeks. This however gave him an opportunity of introducing it as a new genus into his *Hortus Cliffortianus*, and of complimenting the celebrated Dillenius with its name. No subsequent writer has contributed any new information respecting it.

Some years ago Dr. Roxburgh, at my particular request, favoured me with excellent dried specimens, along with the fruit in spirits, and the same gentleman has sent Lady Hume a fine young tree of this species, which is now in a very thriving state. It is presumed

to be the first ever brought alive to Europe. For the drawings from which our figures were taken I am obliged to Captain Hardwicke.

The leaves are crowded about the ends of the branches, on winged footstalks downy underneath, and are from 4 to 12 inches in length, oblong, somewhat elliptical, bluntish, sharply but simply serrated, with numerous parallel veins, roughish to the touch, but not hairy, except on the back of the veins. Flowers terminal, solitary, on simple round stalks, large, handsome, and very fragrant. Calyx of 5 large, concave, coriaceous leaves, which at length become pulpy, enveloping the capsule, and forming an eatable fruit, which, according to Rheede, is too acid to be much used, except mixed with sugar, broth, or other materials. Petals white, with a tinge of green and red. Stamens very numerous, yellow, linear, the points of their antheras recurved and imbricated. Germen superior, roundish, furrowed, crowned with 20 lanceolate, white stigmas, spreading in the form of a star. Capsule of 20 cells, containing numerous compressed seeds, fringed on their outer edge, which Rheede seems not to have seen in a perfect state. All the parts of the flower are permanent, and enfolded by the calyx around the capsule.

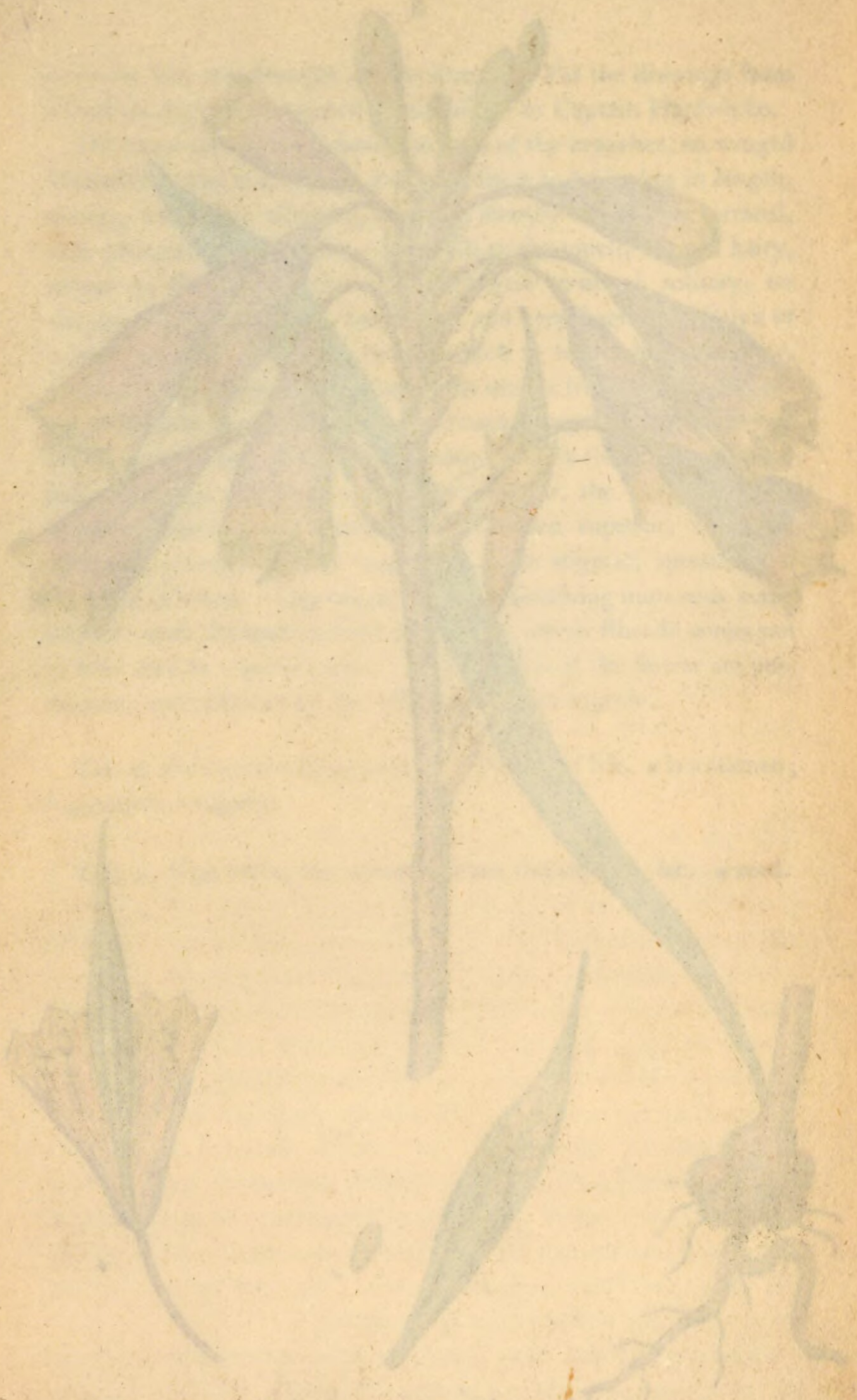
Tab. 2. shows a flowering branch of the size of life. *a* is a stamen; *b* germen; *c* stigmas.

Tab. 3. Ripe calyx, cut across to show the capsule, &c. *a* seed.



Blandfordia nobilis

Dec. 1 1804. Published by Jas. Sowerby, London.



Thalictrum flavum

TAB. 4.

BLANDFORDIA nobilis.

Scarlet Blandfordia.

HEXANDRIA Monogynia.

Corolla inferior, funnel-shaped, straight; its margin in 6 segments. *Filaments* inserted into the tube. *Capsule* with 3 angles, and 3 cells. *Seeds* imbricated, bristly.

A NATIVE of Port Jackson, New South Wales, from whence we have received several drawings and specimens, and we are told there are living plants in England.

The root is woody and perennial. Leaves all radical, linear-lanceolate, acute, entire, smooth, tapering to a narrow base. Stalks one or more, erect, 2 or 3 feet high, simple, straight, round, smooth, bearing a few scattered, membranous, pointed scales, and terminated by a very ornamental upright spike of about a dozen scarlet flowers, each of which hangs elegantly drooping from a longish, simple, red partial stalk, at whose base are two unequal, membranous, concave, pointed, clasping bractees. As the fruit ripens, these stalks become erect. Calyx none. Corolla funnel-shaped, permanent, straight, regularly cloven at the margin into 6 shallow, but little spreading, segments. These are yellow, tipped with green, the rest of the corolla being of a bright scarlet. Stamens 6, equal, shorter than the corolla, inserted into its tube about the middle. Antheras ovate, erect. Germen superior, stalked, oblong, smooth, with 3 sharp angles and as many intermediate furrows, crowned with a conical style and simple stigma, which scarcely protrudes beyond the corolla till the fruit begins to swell. Capsule above thrice as long as the corolla, (which continues to enfold its base,) shaped like the germen, consisting of 3 valves, and a central receptacle, to which the middle of each valve is united so as to divide the capsule into 3 cells. Seeds many in each cell, elliptical, imbricated upwards, fixed to the receptacle, and very remarkable for being rough with short soft bristles, somewhat like the seeds of *Strelitzia*.

Mr. Andrews's *Blandfordia*, named after the present Marquis of Blandford, being the *Galax* of Linnæus, we have found no name more worthy to decorate this genus, which belongs to what Linnæus calls the *Patrician* order of plants, among Jussieu's *Asphodeli*, and may stand near *Aloe* in the Linnæan System.

Tab. 4. a. root. b. flower opened with the enlarging germen.
c. fruit nearly ripe. d. seed.

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Gompholobium grandiflorum.

Dec. 1 1834 Published by, J. Sowerby, London.



Phyllanthus amarus

TAB. 5.

GOMPHOLOBIUM grandiflorum.

*Large-flowered Air-pod.**DECANDRIA Monogynia.*

Calyx bell-shaped, simple, in 5 deep segments. *Corolla* papilionaceous. *Stigma* simple, acute. *Pod* inflated, spherical, of 1 cell, with many seeds.

Leaves ternate, linear, straight. Branches angular, smooth. Keel beardless.

Gompholobium. *Tr. of Linn. Soc. v. 4. 220.*

NO account of this genus, except its short character in the Linnean Society's Transactions above quoted, has hitherto been published. Dried specimens of four species from New South Wales are in our hands, but we know not that any of them are growing in the gardens of Europe.

G. grandiflorum, remarkable for its showy yellow flowers, is a shrub 3 feet in height, found in a sandy soil, and flowering in October. The branches are angular, smooth, leafy. Leaves alternate, 3 on a footstalk, linear, narrow, revolute, entire, smooth, very stiff and straight, tipped with a sharp straight point. Stipulas small. Flowers 2 or 3 at the end of each lateral branch on simple smooth stalks, with a small concave scaly bractea at the base of each stalk. Calyx large, coriaceous, smooth, except a fine woolly fringe at its edge. Standard very large. Wings and keel much smaller, of two petals each. Stamens all distinct, simple and smooth, somewhat unequal in length. Germen on a short stalk, oblong, smooth. Style awl-shaped, simple, with a sharp stigma, permanent. Pod globose, rigid, of 2 inflated valves, and 1 cell. Seeds several, ranged along the upper suture on short stalks.

Tab. 5. a. calyx. *b.* standard. *c.* one of the wings. *d.* keel. *e.* stamens. *f.* germen and style. *g, g.* pod. *H.* seeds somewhat magnified.

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Large-flowered Air-pod.

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TAB. 6.

RHODODENDRON arboreum.

Indian Tree Rhododendron.

DECANDRIA Monogynia.

Calyx inferior, in 5 divisions. *Corolla* monopetalous, somewhat funnel-shaped. *Stamens* declining. *Capsule* of 5 or 10 cells.

Leaves shining, lanceolate, downy beneath. Clusters terminal. Capsule of ten cells. Stem arboreous.

THIS most magnificent new species of *Rhododendron* was first noticed by Captain Hardwicke on a tour to Sireenagur in 1796, growing in the mountainous tract called the Sewalic chain, which separates the plains of Hindostan, between 75° and 85° east longitude, from the Himmaleh mountains. It is generally found in elevated situations in forests of oak; the soil a rich black vegetable earth, on a stony bed. It flowers in March and April, and ripens seed late in May or early in June, a few days before the commencement of the periodical rains. The natives use the wood for making the stocks of matchlocks, or common musquets of Hindostan. The provincial name is *Boorans*.

The stem is columnar, 20 feet or more in height, 16 to 24 inches in diameter. Bark cracking and scaling off in large portions, light as cork, formed of numerous layers 1-48th of an inch thick, connected by a light cellular substance, friable when dry. Branches scattered, ascending, straggling, crooked and brittle. Leaves at the summits of the branches, scattered, on shortish downy footstalks, ovate-lanceolate, acute, entire, revolute; smooth and of a dark shining green above; beneath clothed with white dense downiness, and furnished with a strong rib, and many parallel veins. Clusters terminal, of from 10 to 15 large pedunculated deep-crimson flowers, of little fragrance and short duration, spreading in every direction. Bractees very small. *Calyx* permanent, small, five-cleft, obtuse, reddish at the edge; the two upper segments largest. *Corolla* with

a longish bell-shaped tube, and broad five-lobed border; the lobes cloven, rounded, the two uppermost largest. Stamens 10, declining, unequal in length, smooth, inserted into the receptacle, shorter than the corolla, and falling with it. Antheras oblong, incumbent. Germen superior, cylindrical, white, downy, with 10 furrows which receive the stamens. Style thread-shaped, permanent, longer and thicker than the stamens. Stigma capitate, with 10 notches. Capsule oblong, of 10 celis, a novel circumstance in this genus. Seeds numerous, very small, ovate, compressed, smooth, brown.

We are obliged to Captain Hardwicke for the above description and a drawing, both made on the spot. It is hoped the seeds, which that gentleman has liberally distributed in England, will enrich our collections with this noble tree.

a represents a stamen, *b* the germen and style, *c* the half-ripe germen cut across, all of the natural size.

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TAB. 7.

GLAUCIUM fulvum.

*Orange Horned-Poppy.**POLYANDRIA Monogynia.*

Calyx of 2 leaves. *Petals* 4. *Pod* superior, linear, of 2 cells and 2 or 3 valves. *Seeds* numerous, dotted.

Stem smooth. Stem-leaves rounded, waved. Pods rough. Flowers nearly sessile.

Chelidonium corniculatum. *Donn. Cant.* 100?

OUR figure was taken from the garden of the Rev. Mr. Watts of Ashill in September last. We have cultivated this plant for two or three years, from seed originally obtained from the Cambridge garden, by the name of *Chelidonium corniculatum*. How different that species is, may be seen by the figure in Curtis's *Flora*, fasc. 6. t. 32, and the description of it in *Fl. Brit.* as *Glaucium phoenicium*. The plant before us bears a greater resemblance to *Glaucium luteum*, the Yellow Horned-Poppy of our sea-shores; but differs in the orange colour of its flowers, and in being strictly annual, while that is now known to be perennial. The whole herb is also of a more blue cast, and, as an essential specific character, it is observable that the flowers are nearly sessile. We can find no synonym for it in the old writers. Some persons may guess it to be a mule, from *G. phoenicium* having received the pollen of *G. luteum*; but its abundant fertile seeds are unfavourable to such a supposition. We presume it to be a native of the south of Europe. It easily propagates itself by seed on a light dry soil, and deserves a place in every garden.

a shows the inner side of a petal; *b* the germen with a few of the stamens.

TAB. 7.

GLAUCIUM

Orange Horned-Poppy

POLYANDRIA Monogamia.

Calyx of 2 leaves. Petals 4. Pod superior, linear, of 2
cells and 2 or 3 valves. Seeds numerous, dotted.
Stem smooth. Stem-leaves rounded, waved. Pods rough.
Flowers nearly sessile.

Chelidonium corniculatum. Down. Cat. 100?

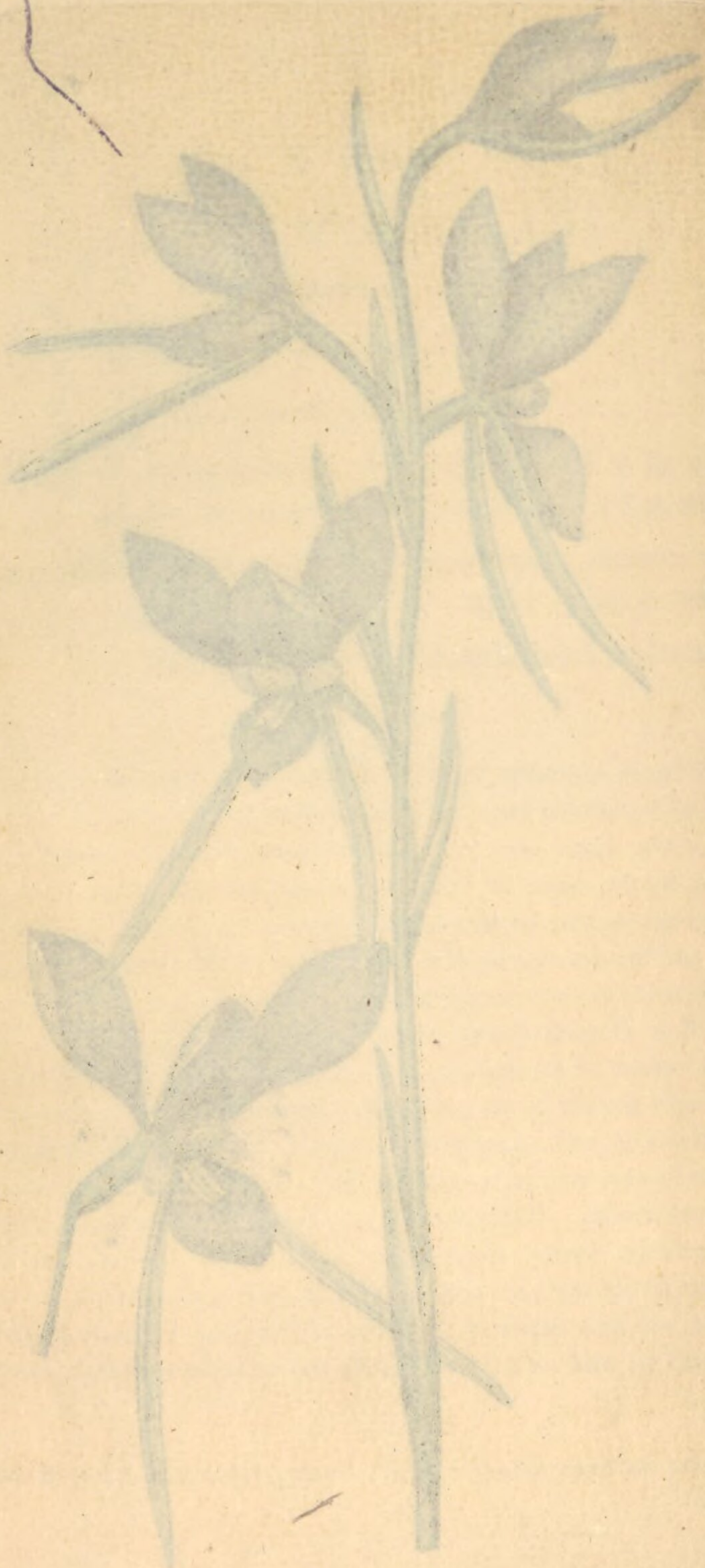
OUR figure was taken from the garden of the Rev. Mr. Waupe of
Astell in September last. We have cultivated this plant for two or
three years, from seed originally obtained from the Cambridge
garden, by the name of Chelidonium corniculatum. How different
that species is, may be seen by the figure in Carter's Flora, Jacq. 6.
t. 32, and the description of it in M. Bosc's Glacium polyandrum.
The plant before us bears a greater resemblance to Glacium atratum,
the Yellow Horned-Poppy of our sea-shores; but differs in the
orange colour of its flowers, and in being strictly annual, while
that is now known to be perennial. The whole herb is also of a
more blue cast, and, as an essential specific character, it is observable
that the flowers are nearly sessile. We can find no synonymy for it
in the old writers. Some persons may guess it to be a male, from
G. glaucum having received the pollen of G. atratum; but its
abundant fertile seeds are unfavourable to such a supposition. We
presume it to be a native of the south of Europe. It easily propa-
gates itself by seed on a light dry soil, and deserves a place in every
garden.

a shows the inner side of a petal; b the germen with a row of the
stamens.



Diuris punctata

Jan. 1. 1805. Published by Jas. Sowerby, London.



Quercus punctata
var. *macrocarpa* (Mill.) B.S.P.

TAB. 8.

DIURIS punctata.

*Blue Dotted Diuris.**GYNANDRIA Diandria.*

Nectary a pendulous lip, without a spur. *Petals* 9; the 5 outermost largest, of 2 kinds. *Column* of the fructification reversed, the *lid* parallel.

Two lower petals linear, thrice as long as the lip; two lateral ones rounded, entire.

OF this most singular and beautiful genus the first account was given in the 4th volume of the Linnean Society's Transactions, p. 222; since which it has been described and figured by the ingenious Professor Swartz, among the rest of the Orchis tribe, in the Stockholm Transactions for 1800. Both those accounts relate merely to the generic character, nor has any author particularized any of the numerous species, all which appear to be natives of New South Wales, from whence we have received specimens and coloured drawings. As far as we know, all have the double bulbous root frequent in the *Orchis*; they love a good soil, and blossom from July to October. None have been brought alive to Europe, but they are well worthy the attention of the curious.

The present species is about two feet high, having a simple stem, clothed with a few remote sheathing leaves or scales. We have seen no radical leaves. Spike of a few large bracteated purplish-blue very ornamental flowers, variously dotted all over with a darker colour. Of their 5 outer petals the 2 lowest are long narrow and green, the rest obovate and coloured. Of the 4 small inner petals the lateral (or outermost) are spreading, rounded and entire; the innermost acute, and notched on one side. Lip with a yellow furrow half its length, ending in 2 teeth. Column green.

a, *a* the lateral petals; *b* one of the innermost; *c* column; *d* its lid; all of their natural size.

TAB. 8.

D I U R I S

Blue Dotted Diuris.

GYNAEUM Diandria.

Very a pendulous lip, without a spur. Petals 2; the 2 outermost largest, of 2 kinds. Column of the fructification reversed, the lid parallel.

Two lower petals linear, thrice as long as the lip; two lateral ones rounded, entire.

Of this most singular and beautiful genus the first account was given in the 4th volume of the Linnæan Society's Transactions, p. 222; since which it has been described and figured by the ingenious Professor Swartz, among the rest of the Orchis tribe, in the Stockholm Transactions for 1800. Both these accounts relate merely to the generic character, not has any author particularized any of the numerous species, all which appear to be natives of New South Wales, from whence we have received specimens and coloured drawings. As far as we know, all have the double bulbous root frequent in the Orchis; they love a good soil, and blossom from July to October. None have been brought alive to Europe, but they are well worthy the attention of the curious.

The present species is about two feet high, having a simple stem, clothed with a few remote sheathing leaves or scales. We have seen no radical leaves. Spike of a few large bracted purplish-blue very ornamental flowers, variously dotted all over with a darker colour. Of their 5 outer petals the 2 lowest are long narrow and green, the rest obovate and coloured. Of the 4 small inner petals the lateral (or outermost) are spreading, rounded and entire; the innermost acute, and notched on one side. Lip with a yellow furrow half its length, ending in 2 teeth. Column green.

a, a the lateral petals; b one of the innermost; c column; d its lid; all of their natural size.



Diuris aurea

Jan^r. 1. 1805. Published by Jas^s. Sowerby, London.



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AND
GEOGRAPHY
OF THE
CITY OF BOSTON

TAB. 9.

DIURIS aurea.

*Golden Diuris.**GYNANDRIA Diandria.*

Nectary a pendulous lip, without a spur. *Petals* 9; the 5 outermost largest, of 2 kinds. *Column* of the fructification reversed, the *lid* parallel.

Two lower petals lanceolate, not twice as long as the lip; two upper elliptical, acute, with short claws.

Diuris. Swartz in *Stockh. Trans.* for 1800. 229. t. 3. f. M.

THIS, as we are informed, flowers in October. The stem is 12 or 14 inches high, with one or two narrow upright leaves from the root, which is a double bulb. Flowers from 3 to 5 in the spike, each with its bractea as in the last. They are but half the size of that species, and of a bright golden yellow, somewhat spotted about the lip (but not in the larger petals) with red. The lowest petals are lanceolate, yellowish green, about half as long again as the lip; the 2 uppermost elliptical, acute, with short claws. Of the small petals the lateral or outermost are spatulate, obtuse, and entire; the inner ones lanceolate, acute.

This is the species which I communicated to Dr. Swartz, and which he has figured. It is with great diffidence we persist in reckoning 9 petals (or calyx-leaves as he chooses to call them) when he who has so deeply studied this order could find but 7, apparently overlooking the small sharp inner pair. The column in this is more dilated than in the foregoing.

A, A are the bases of 2 upper petals cut off. B base of central or odd petal. C lip cut off, showing its 2 sharp teeth on the upper side. D, D bases of lower petals. E, E lateral petals entire. F, F small inner petals, not mentioned by Dr. Swartz. G lid of the fructification, with cells which held the antheras. H column.

TAB. 9.

D I U R I S

Golden Düris.

GYMADRIA Düris.

Nectary a pendulous lip, without a spur. Petals 9; the 2 outermost largest, of 2 kinds. Column of the fructification reversed, the lid parallel.

Two lower petals lanceolate, not twice as long as the lip; two upper elliptical, acute, with short claws.

Düris. Swartz in *Stockh. Trans.* for 1800. 229. t. 3. A. M.

THIS, as we are informed, flowers in October. The stem is 12 or 14 inches high with one or two narrow upright leaves from the root, which is a double bulb. Flowers from 3 to 5 in the spike, each with its bractee as in the last. They are but half the size of that species, and of a bright golden yellow, somewhat spotted about the lip (but not in the larger petals) with red. The lowest petals are lanceolate, yellowish green, about half as long again as the lip; the 2 uppermost elliptical, acute, with short claws. Of the small petals the lateral or outermost are spatulate, obtuse, and entire; the inner ones lanceolate, acute.

This is the species which I communicated to Dr. Swartz, and which he has figured. It is with great diffidence we persist in reckoning 9 petals (or calyx-leaves as he chooses to call them) when he who has so deeply studied this order could find but 7, apparently overlooking the small sharp inner pair. The column in this is more dilated than in the foregoing.

A. A are the bases of 2 upper petals cut off. B base of central or odd petal. C lip cut off, showing its 2 sharp teeth on the upper side. D, D bases of lower petals. E, E lateral petals entire. F, F small inner petals, not mentioned by Dr. Swartz. G lid of the fructification, with cells which hold the anthers. H column.

TAB. 10.

DENDROBIUM speciosum.

Great Dendrobium.

GYNANDRIA Diandria.

Nectary a lip without a spur. *Petals* 5; the 2 lower external ones forming a pouch with their base. *Lid* vertical. *Flowers* often reversed.

Flowers reversed. Cluster solitary, many-flowered. Lip three-lobed. Leaves radical, coriaceous.

GROWS on rocks and trees in New South Wales, where the natives call it *Wer-gal-derra*. It is a fine species of a new genus formed by Dr. Swartz, with great judgment, out of the *Epidendrum* of authors, another species of which is my *E. Barringtoniæ*, *Ic. Pict. Plantarum*, t. 15; but in that the flowers are not, as in this, reversed.

The stem is short and thick. Leaves almost entirely radical, from 6 to 12 inches long, very tough and rigid, oblong, entire. Cluster solitary, on a scaly stalk, simple, consisting of a great number of alternate stalked flowers, of which our plate can admit but a few of the lowermost. From their greenish colour I should expect them to be fragrant at night. The 5 petals are oblong; the 2 lowermost (or in this reversed species the uppermost) forming a pouch, or short spur, round the base of the lip, which itself has no spur. The lip is 3-lobed, concave, green spotted with red. Column crowned by the vertical moveable cap or lid. Capsule obovate.

a is the pouch. *b* lip. *c* column. *d* lid. *e* capsule.

TAB. 10.

DENDROBIUM speciosum.

Great Dendrobium.

GYANDRIA Diandra.

Receptacle a lip without a spur. Petals 5; the 2 lower ex-
ternal ones forming a pouch with their base. Lid vertical.
Flowers often reversed.

Flowers reversed. Cluster solitary, many-flowered. Lip
three-lobed. Leaves radical, coriaceous.

GROWS on rocks and trees in New South Wales, where the na-
tives call it We-gal-dewer. It is a fine species of a new genus
formed by Dr. Swartz, with great judgment, out of the *Gyandria*
of authors, another species of which is my *G. Buxifolia*, *Jo.*
Pict. Plantarum, t. 15; but in that the flowers are not, as in this,
reversed.

The stem is short and thick. Leaves almost entirely radical,
from 6 to 12 inches long, very tough and rigid, oblong, entire.
Cluster solitary, on a scaly stalk, simple, consisting of a great
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2 lowermost (or in this reversed species the uppermost) forming a
pouch, or short spur, round the base of the lip, which itself has no
spur. The lip is 3-lobed, concave, green spotted with red. Column
crowned by the vertical movable cap or lid. Capsule obovate.

a is the pouch. b lip. c column. d lid. e capsule.



Dendrobium speciosum



Quadrifidus speciosus

TAB. 11.

DENDROBIUM linguiforme.

*Tongue-leaved Dendrobium.**GYNANDRIA Diandria.*

Nectary a lip without a spur. *Petals* 5; the 2 lower external ones forming a pouch with their base. *Lid* vertical. *Flowers* often reversed.

Flowers reversed. Stem creeping. Leaves sessile, obovate, fleshy. Clusters from the base of the leaves. Lip revolute.

Dendrobium linguæforme. Swartz in *Stockh. Trans.* for 1800. 247.

FOUND upon rocks along the sea-shore at Port Jackson. The long branching fleshy roots creep among the decaying vegetable earth and mosses, and fix the stems which are prostrate, branched, leafy, round, jointed, smooth, and of a tawny hue, sheathed in their younger parts with large, membranous, pellucid, concave scales or stipulas. Leaves alternate, sessile, not an inch long, obovate or elliptical, obtuse, entire, excessively thick and succulent, smooth, marked with three longitudinal furrows on the upper surface, convex beneath. Clusters solitary, erect, slender, each springing from within the stipula at the base of a leaf, and invested with a double sheath of its own. Flowers about 6 or more in a cluster, reversed, on slender alternate stalks, each of which has a minute bractea at its base. Petals linear, acute, cream-coloured. Pouch yellowish. Lip narrow, acute, strongly recurved, slightly 3-lobed, blue at the base, yellowish and furrowed towards the extremity.

The pretty delicate flowers, and the singularity of the stem and leaves, entitle this plant to a place in our conservatories, if a stone could be brought with the roots and their mossy clothing undisturbed.

A represents a flower somewhat magnified. B the lip. C germen. D column. E lid. F antheras, or rather masses of pollen.

TAB. II.

DENDROBIUM linguliforme.

Tongue-leaved Dendrobium.

GYMNAEDRIA Dianthus.

Nectary a lip without a spur. Petals 5; the 2 lower external ones forming a pouch with their base. Lid vertical. Flowers often reversed.

Flowers reversed. Stem creeping. Leaves sessile, obovate, fleshy. Clusters from the base of the leaves. Lip revolute.

Dendrobium linguliforme. Stewart in *Stockholm Trans.* for 1800.

247.

FOUND upon rocks along the sea-shore at Port Jackson. The long branching fleshy roots creep among the decaying vegetable earth and mosses, and fix the stems which are prostrate, branched, leafy, round, jointed, smooth, and of a tawny hue, sheathed in their younger parts with large, membranous, pellucid, concave scales or stipules. Leaves alternate, sessile, not an inch long, obovate or elliptical; obtuse, entire, excessively thick and succulent, smooth, marked with three longitudinal furrows on the upper surface, convex beneath. Clusters solitary, erect, slender, each springing from within the stipule at the base of a leaf, and invested with a double sheath of its own. Flowers about 6 or more in a cluster, reversed, on slender alternate stalks, each of which has a minute bract at its base. Petals linear, acute, cream-coloured. Pouch yellowish. Lip narrow, acute, strongly recurved, slightly 3-lobed, blue at the base, yellowish and furrowed towards the extremity.

The pretty delicate flowers, and the singularity of the stem and leaves, entitle this plant to a place in our conservatories, if a stone could be brought with the roots and their mossy clothing undisturbed.

A represents a flower somewhat magnified. B the lip. C gynoecium. D column. E lid. F antheras, or rather masses of pollen.



Dendrobium linguiforme.
 Feb'y 1. 1805. Published by Jas. Sowerby, London.



Desmodium illinoense
var. *illinoense*



Dendrobium punctatum.

Feb. 1. 1805. Published by J. Sowerby. London.



TAB. 12.

DENDROBIUM punctatum.

*Dotted Dendrobium.**GYNANDRIA Diandria.*

Nectary a lip without a spur. *Petals* 5; the 2 lower external ones forming a pouch with their base. *Lid* vertical. *Flowers* often reversed.

Flowers upright. Spike many-flowered. Lip three-lobed, acute, downy. Leaves radical, very short.

DRAWINGS and specimens of this, as well as of the two preceding, were sent us long ago from New South Wales by Dr. White. This is a very elegant species, producing from a small root 4 or 5 stems, 2 or 3 feet high, each of which is simple, round, purple, clothed with a few straggling scales only, and terminating in a long and handsome spike of 20 or 30 purple flowers, singular for the red glandular dots which besprinkle their germen, and the specks of a darker purple scattered over their petals and nectary. Each flower stands on a bracteated stalk, and is upright, not reversed or laid on its back as in the two foregoing. The petals are lanceolate, lip 3-lobed, acute, downy above, yellowish at the base, of a darker purple than the petals toward the extremity. The leaves of this plant are little else than a few imbricated acute sheathing scales, at the base of the stem.

A shows the germen magnified. B the lip. C column. D lid. E stigma.

TAP. 12.

DENDROBIUM punctatum.

Dotted Dendrobium.

GYMNAEDRIA Dindavia.

Nectary a lip without a spur. Petals 5; the 2 lower external ones forming a pouch with their base. Lip vertical. Flowers often reversed.

Flowers upright. Spike many-flowered. Lip three-lobed, acute, downy. Leaves radical, very short.

DRAWINGS and specimens of this, as well as of the two preceding, were sent us long ago from New South Wales by Dr. White. This is a very elegant species, producing from a small root 4 or 5 stems, 2 or 3 feet high, each of which is simple, round, purple, clothed with a few straggling scales only, and terminating in a long and handsome spike of 20 or 30 purple flowers, singular for the red glandular dots which besprinkle their germs, and the specks of a darker purple scattered over their petals and nectary. Each flower stands on a bracted stalk, and is upright, not reversed or laid on its back as in the two foregoing. The petals are lanceolate, tip 3-lobed, acute, downy above, yellowish at the base, of a darker purple than the petals toward the extremity. The leaves of this plant are little else than a few imbricated acute sheathing scales, at the base of the stem.

A shows the germs magnified. B the lip. C column. D lid.

E stigma.



Ipomopsis elegans.

Feb. 1. 1805. Published by Jas. Sowerby, London.



Chamaenerion angustifolium
(Ranunculaceae)

TAB. 13.

IPOMOPSIS elegans.

*Scarlet Ipomopsis.**PENTANDRIA Monogynia.*

Calyx in 5 segments, membranous at the base. *Corolla* funnel-shaped. *Stamens* springing from the tube. *Stigma* 3-cleft. *Capsule* superior, of 3 cells and 3 valves. *Seeds* several, angular.

Stem erect, straight. *Corolla* thrice as long as the calyx.

Ipomopsis elegans. *Michaux Fl. Boreali-Americana*, v. 1. 141.

Ipomœa rubra. *Linn. Syst. Veg. ed. 14*. 204. *Ait. Hort.*

Kew. v. 1. 215.

Polemonium rubrum. *Linn. Sp. Pl.* 231.

Cantua coronopifolia. *Willden. Sp. Pl. v. 1*. 879.

Quamoclit pennatum erectum, floribus in thyrsus digestis.

Dill. Elth. 321. t. 241.

THE beautiful plant of which we here exhibit the first coloured plate ever published, is a native of South Carolina, from whence it was originally brought to Sherard's garden at Eltham. It has occasionally been imported since from the same country, and was raised last year, in great perfection, in the garden of Messieurs Lee and Kennedy at Hammersmith, where our figure was drawn. Being, according to all appearance, a biennial, not flowering with us till September or October, and consequently ripening seed with difficulty, it is a much greater rarity than its beauty would lead us to wish. Catesby is said by Dillenius to have discovered it 250 miles beyond Charles-town, growing in low sandy places, and flowering in June. The same author adds that he found it very tender and difficult of culture, for though the seed given by Catesby readily vegetated, scarcely one plant in twenty came to perfection. It seems to have been formerly in Mr. Lee's collection; for a good drawing of it, by

his late amiable and accomplished sister, is in the possession of the Marquis of Blandford. We have also seen an imitation of this flower in cut paper, of various colours, by the celebrated Mrs. Delany, in the possession of Lady Banks.

About its genus there has been much uncertainty. Linnæus first made it a *Polemonium* and then an *Ipomœa*, but it agrees with neither. The learned Jussieu supposed it might be reduced to his genus of *Cantua*, and has lately again advanced that opinion; but the want of winged seeds, the membranous calyx, and the totally different habit, abundantly justify Michaux in establishing it as a new genus; and we adopt his name, which seems to express the dazzling brilliancy of the flower.

The root is fibrous. Stem solitary, erect, straight and wand-like to the height of 4 or 5 feet, where it becomes paniced: it is round, leafy, clothed like the whole herbage with short glandular white hairs. Leaves pinnatifid, with long narrow linear segments, those of the radical ones being shortest and broadest: the floral leaves are simple. Flowers terminal and lateral, on short stalks, drooping. Calyx bell-shaped, cut above half way down into 5 awl-shaped equal segments, connected by a membrane at their base. Corolla thrice as long as the calyx, funnel-shaped, its border equally 5-cleft, of a brilliant scarlet, elegantly dotted on the inside. Stamens springing from the upper part of the tube, slender, red, shorter than the border. Antheras round, yellow. Germen superior, ovate, obtuse, smooth, pale green. Style red, thread-shaped, about as long as the stamens, with a red, three-cleft, spreading stigma. Capsule almost membranous, of 3 valves and 3 cells, the partitions from the centre of the valves. Seeds several in each cell, in 2 rows, small, acutely angular, not winged.

a is a radical leaf. *b* corolla expanded to show the stamens. *c* calyx with the germen and style.



Ipomopsis inconspicua.

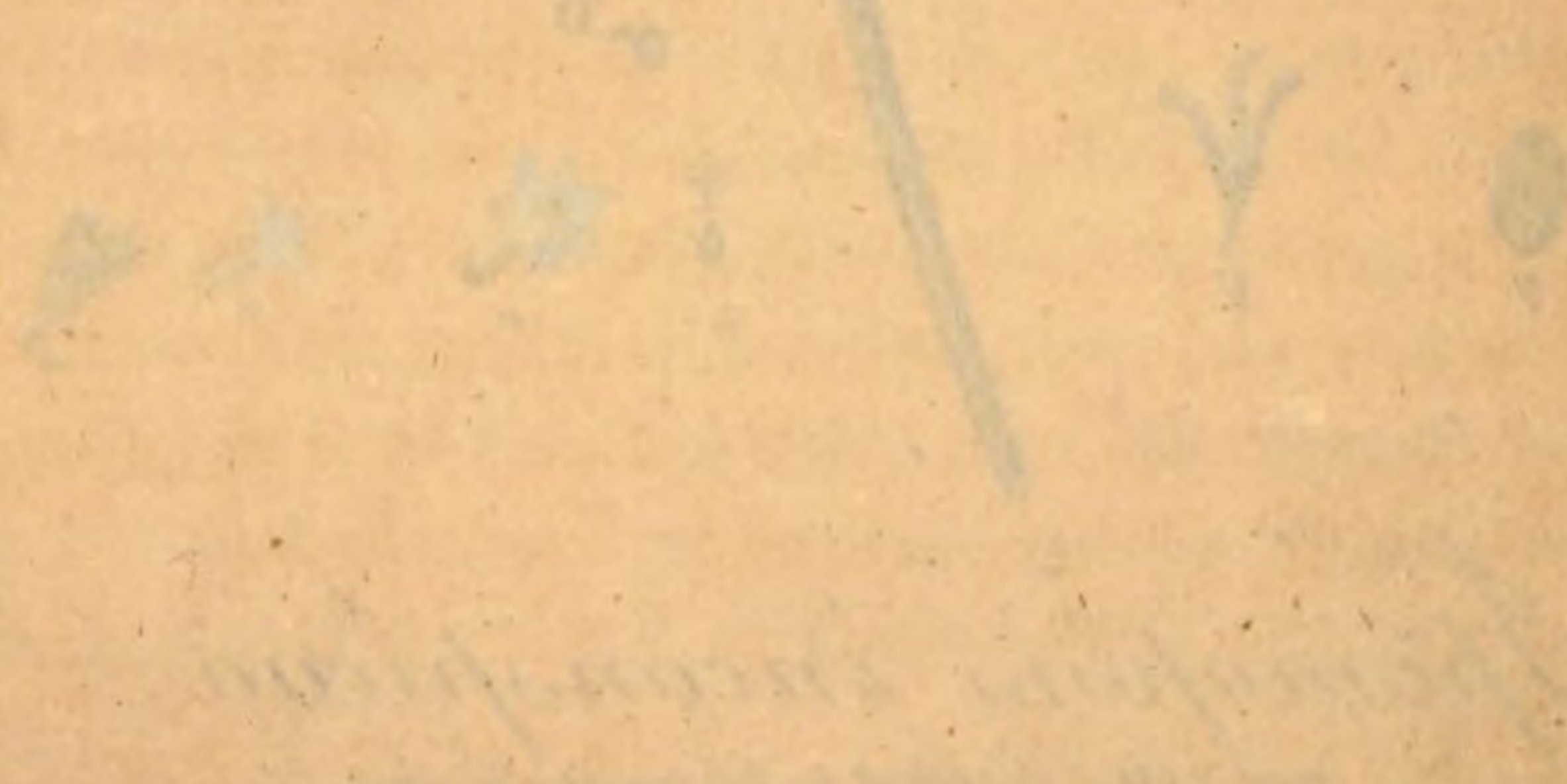
Feb^y. 1-1865 Published by, Jas^s. Sowerby, London.

The plant is a native of the mountains of the
Andes, and is now in the possession of the
Garden of the University of Cambridge. It was
first introduced by Mrs. D. in the year 1811.

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Garden of the University of Cambridge. It was
first introduced by Mrs. D. in the year 1811.



TAB. 14.

IPOMOPSIS inconspicua.

*Little Blue Ipomopsis.**PENTANDRIA Monogynia.*

Calyx in 5 segments, membranous at the base. *Corolla* funnel-shaped. *Stamens* springing from the tube. *Stigma* 3-cleft. *Capsule* superior, of 3 cells and 3 valves. *Seeds* several, angular.

Stem much branched and spreading. Corolla scarcely longer than the calyx. Segments of all the leaves linear.

RAISED in 1793, by Mr. Thomas Hoy, F. L. S. at Sion House, from seed brought, if we mistake not, from America. Mr. Sowerby sketched it in November of that year, and I have never doubted its being distinct from all the genera in Linnæus or Jussieu. It serves indeed to confirm the *Ipomopsis* of Michaux, with which it agrees so completely in every botanical character, that we find it not very easy to establish even a specific difference on sound principles; while on the other hand it shows how different this natural genus is from *Cantua*, and all others to which it has been referred.

The root is annual. Stems numerous, a foot or more in height, much branched, spreading and partly decumbent, leafy, round, clothed with the same pubescence as the foregoing species. Leaves alternate, pinnatifid, the segments all long, narrow, and for the most part simple. Flower-stalks either from the forks of the stem or opposite to the leaves, various in length, simple, solitary or in pairs, erect. Calyx much like the last, but with rather broader teeth. Corolla very little longer than the calyx, blue with a white tube, by no means striking or beautiful. Stamina short, fixed to the top of the tube. Style shortish, with a large 3-cleft purplish stigma. Capsule ovate, thin, whitish, with many angular seeds.

We have a third species, gathered by Dombey at Lima, much like this, but upright; its leaves doubly pinnatifid, with somewhat elliptical lobes, and its flowers whitish.

a is the calyx of *Ipomopsis inconspicua*. *b* corolla. *c* corolla expanded. *D* a magnified stamen. *e* germen and style. *F* magnified stigma. *g* capsule. *h* seeds.

PENTANDRIA Monogynia.

Calyx in 5 segments, membranous at the base. Corolla funnel-shaped. Stamens springing from the tube. 3-lobed. Capsule superior, of 3 cells and 3 valves. Seeds several, angular.

Stem much branched and spreading. Corolla scarcely longer than the calyx. Segments of all the leaves linear.

RAISED in 1793, by Mr. Thomas Hoy, F. L. S. at Sion House, from seed brought, if we mistake not, from America. Mr. Sowerby sketched it in November of that year, and I have never doubted its being distinct from all the genera in Linnaeus or Jussieu. It serves indeed to confirm the *Ipomopsis* of Michaux, with which it agrees so completely in every botanical character, that we find it not very easy to establish even a specific difference on sound principles; while on the other hand it shows how different this natural genus is from *Cuscuta*, and all others to which it has been referred.

The root is annual. Stems numerous, a foot or more in height, much branched, spreading and partly decumbent, leafy, round, clothed with the same pubescence as the foregoing species. Leaves alternate, pinnatifid, the segments all long, narrow, and for the most part simple. Flower-stalks either from the forks of the stem or opposite to the leaves, various in length, simple, solitary or in pairs, erect. Calyx much like the last, but with rather broader teeth. Corolla very little longer than the calyx, blue with a white tube, by no means striking or beautiful. Stamens short, fixed to the top of the tube. Style shortish, with a large 3-lobed purplish stigma. Capsule ovate, thin, whitish, with many angular seeds.

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TAB. 15.

STRATIOTES alismoides.

*Broad-leaved Water Soldier.**POLYANDRIA Hexagynia.**Spatha* cloven. *Inner Calyx* superior, in 3 segments. *Petals* 3.*Berry* with 6 or more cells.

Leaves broad-ovate, entire. Flowers with eight stamens and eight styles.

Stratiotes alismoides. *Linn. Sp. Pl.* 754. *Mant.* 405.

IT is only of late years that the tropical aquatic plants have been cultivated amongst us with any success. That in the annexed plate was sent from Calcutta by Dr. Roxburgh to Lady Hume, in whose stove it blossomed last autumn. We have not heard of it in any other collection. Like some other water plants with tuberous roots, it may be kept alive for a long while, almost without any moisture; such plants in their native situations being exposed to a variety of changes in that respect, from the drying up or overflowing of the ponds or rivers where they grow.

The root is perennial, consisting of a solid knob throwing out innumerable simple fibres. Leaves several, on long foot-stalks, of a very broad ovate or almost heart-shaped figure, bluntly pointed, entire, with many longitudinal ribs and a multitude of transverse veins. Flower-stalks radical, simple, about as long as the leaves, angular, each bearing a solitary white flower of very short duration. The spatha is attached to the germen, not of 2 separate leaves as in the other species, but merely cloven at the top into 2 or 3 larger segments, with some small intermediate ones. Its sides are dilated into 2 or 3 (we scarcely find more) longitudinal wings. Proper calyx superior, of 3 deep oblong segments, alternate with the 3 roundish petals. Stamens 8, with vertical linear orange antheras. Styles 8, with cloven linear yellow stigmas. Berry cylindrical, winged, with 8 cells, and numerous elliptical seeds.

Captain Hardwicke has favoured us with a most beautiful detailed drawing of a variety of this plant, with much narrower and perfectly ovate leaves; but there is no reason to suppose it more than a variety. From this we have borrowed the fruit, as well as a stamen and style.

The difference between the spatha of this and our european *Stratiotes aloides*, appears by no means sufficient to make them distinct genera, still less could the differences of number in the parts of fructification authorize such a division.

This species shows the impropriety of removing *Stratiotes* (contrary to Linnæus's repeated observations) to the *Dioecia*. It is to be lamented that some botanists have been so ready to encumber that class, as well as *Monoecia* and *Polygamia*, with plants that have only occasionally one or other of their organs imperfect, as happens now and then in *S. aloides*.

a represents the unripe germen. *b* a petal. *c* a stamen and anthera. *d, d* styles. *e* ripe fruit cut across.



Dilatris corymbosa

March 1. 1865. Published by Jas. Sowerby, London.

The first part of the book is devoted to a detailed description of the various species of plants and animals which are found in the various parts of the world. The second part is devoted to a description of the various species of plants and animals which are found in the various parts of the world.

The third part of the book is devoted to a description of the various species of plants and animals which are found in the various parts of the world. The fourth part is devoted to a description of the various species of plants and animals which are found in the various parts of the world.

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The seventh part of the book is devoted to a description of the various species of plants and animals which are found in the various parts of the world. The eighth part is devoted to a description of the various species of plants and animals which are found in the various parts of the world.

TAB. 16.

DILATRIS corymbosa.

Broad-petalled Dilatris.

TRIANDRIA Monogynia.

Calyx none. *Petals* 6, regular, hairy. One *stamen* smaller than the other 2. *Stigma* simple. *Capsule* inferior, of 3 cells and 3 valves. *Seeds* solitary, round, compressed.

Petals ovate. Flowers in a flattish hairy tuft.

Dilatris corymbosa. Berg. Pl. Cap. 9. t. 3. f. 5. Thunb.

Prod. 10. Willden. Sp. Pl. v. 1. 246. Herb. Linn.

D. umbellata. Linn. Suppl. 101.

Wachendorfia umbellata. Linn. Syst. Veg. ed. 13. 80.

Ixia hirsuta. Linn. Mant. 27. 320. 511.

OF this genus we know not that any figure has appeared, except the uncoloured one of Bergius above quoted. We find no mention of any *Dilatris* in the *Hortus Kewensis*, nor in Mr. Donn's rich *Hortus Cantabrigiensis*. Mr. Sowerby made his drawing some time since from the hot-house of Messieurs Lee and Kennedy.

This plant is a native of the Cape of Good Hope, but no mention is made of its particular situation. The root is perennial, consisting of numerous thick and very woolly fibres; from which circumstance, and the appearance of one of the Linnæan specimens, it seems to grow in a pure coarse white sand. Grasses that thrive in pure sand have generally very woolly roots. The stem is simple, about a foot high, round, downy, especially in the upper part, bearing a few short alternate leaves. The radical leaves are numerous, about half as high as the stem, sword-shaped, sheathing, two-ranked, smooth, rather glaucous, of a tawny orange at their base. Flowers in a compound hairy reddish tuft or *corymbus*, with oblong downy bractees, by no means umbelled, so that the original specific name given by Bergius is much the best. *Calyx* entirely wanting. *Petals* ovate, broad, concave, uniform, of a delicate lilac, hairy on the outside,

united at the base, standing on the red round hairy germen. Stamens thread-shaped, spreading, reddish, smooth, all longer than the petals, but one of them is shorter than the other two. Antheras, as far as we have observed, all equal in size, as Linnæus likewise remarks in opposition to Bergius. Style of the form and length of the shorter stamen, with a simple acute stigma. Jussieu describes 3 abortive stamens besides the 3 perfect ones. The fruit of this species we have not seen.

The name *Dilatris*, given by Bergius, from $\delta\iota\varsigma$ and $\lambda\alpha\tau\rho\iota\varsigma$, expressive of two servants or attendants, seems to imply that two of the stamens are imperfect, or of less importance than the third, probably because he found the latter had a larger anthera, but we find all three perfect.

Tab. 16 shows the plant in its natural proportion, with the parts of the flower sufficiently clear in their proper situations.

Of this genus we know not that any figure has appeared, except the uncoloured one of Bergius above quoted. We find no mention of any *Dilatris* in the *Herbarium Kewense*, nor in Mr. Donn's rich *Herbarium Cantabrigiense*. Mr. Sowerby made his drawing some time since from the hot-house of Messieurs Lee and Kennedy. This plant is a native of the Cape of Good Hope, but no mention is made of its particular situation. The root is perennial, consisting of numerous thick and very woolly fibres; from which circumstance, and the appearance of one of the Linnæan specimens, it seems to grow in a pure coarse white sand. Grasses that thrive in pure sand have generally very woolly roots. The stem is simple, about a foot high, round, downy, especially in the upper part, bearing a few short alternate leaves. The radical leaves are numerous, about half as high as the stem, sword-shaped, sheathing, two-ranked, smooth, rather glaucous, of a tawny orange at their base. Flowers in a compound hairy reddish tuft or corymbus, with oblong downy bracts, by no means umbellated, so that the original specific name given by Bergius is much the best. Calyx entirely wanting. Petals ovate, broad, concave, uniform, of a delicate lilac, hairy on the outside,



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Alouatta palliata
Alouatta palliata



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TAB. 17.

LINUM trigynum.

*Three-styled Golden Flax.**PENTANDRIA Pentagynia.*

Calyx of 5 leaves. *Petals* 5. *Capsule* superior, with 6 or 10 valves, and as many cells. *Seeds* solitary.

Leaves alternate, elliptical, serrated, acute. Styles three. Capsule of six cells.

THIS very handsome species of Flax, remarkable for having only 3 styles, and consequently but 6 cells to the fruit, was observed by Captain Hardwicke on the sides of mountains in Sireenagur, flowering in great profusion and beauty in December. That gentleman has published it, by the apt name of *Linum trigynum*, in his Enumeration of the Plants of Sireenagur, in the Asiatic Annual Register for 1800. From a drawing made on the spot our plate is copied. Nor is the Plant entirely a stranger to our gardens, for it blossomed last December in the stove of the Right Hon. Charles Greville at Paddington. Its provincial name is *Gul Ashorfee*, in allusion to its fine golden colour, from *Gul* a flower, and *Ashorfee* a gold coin current in India, of the value of 2l. sterling.

The stem is shrubby and much branched; branches round, smooth, leafy. Leaves alternate, smooth, dark green, elliptical, obsolete serrated, tipped with a small point, tapering at the base into a shortish foot-stalk. Flower-stalks clustered about the ends of the branches, and accompanied by lanceolate bractees. Calyx-leaves ovate, acute, entire, ribbed, smooth. Petals obovate, slightly notched, furnished with a small tooth on each side of their claw, and marked with longitudinal veins as usual in the genus. Stamens 5, short, with slight rudiments of 5 others between them. Germen round, depressed. Styles 3, slender, with globular stigmas protruding beyond the stamens. Capsule green and juicy at first, but

brown when dry, generally of 6 cells. Seeds solitary, very thin and soon dried up, so as to be difficult of transportation to any distance. The flowers have little or no scent.

a shows the germen and styles. *b* a section of the unripe capsule.

Three-styled Golden Flax.

PENTANDRIA Pentagynia.

Calyx of 5 leaves. Petals 5. Capsule superior, with 6 or 10 valves, and as many cells. Seeds solitary.

Leaves alternate, elliptical, serrated, acute. Styles three. Capsule of six cells.

This very handsome species of Flax, remarkable for having only 3 styles, and consequently but 6 cells to the fruit, was observed by Captain Hardwicke on the sides of mountains in Sincenagur, flowering in great profusion and beauty in December. That gentleman has published it by the apt name of *Linnæa trigyna*, in his Enumeration of the Plants of Sincenagur, in the Asiatic Annual Register for 1800. From a drawing made on the spot our plate is copied. Not is the plant entirely a stranger to our gardens, for it blossomed last December in the stove of the Right Hon. Charles Grey at Paddington. Its provincial name is *Gul Ashraf*, in allusion to its fine golden colour, from *Gul* a flower, and *Ashraf* a gold coin current in India, of the value of 2l. sterling.

The stem is shrubby and much branched; branches round, smooth, leafy. Leaves alternate, smooth, dark green, elliptical, obtusely serrated, tipped with a small point, tapering at the base into a shortish foot-stalk. Flower-stalks clustered about the ends of the branches, and accompanied by lanceolate bracts. Calyx-leaves ovate, acute, entire, ribbed, smooth. Petals ovate, slightly notched, furnished with a small tooth on each side of their claw, and marked with longitudinal veins as usual in the genus. Stamens 5, short, with slight rudiments of 5 others between them. Germen round, depressed. Styles 3, slender, with globular stigmas protruding beyond the stamens. Capsule green and juicy at first, but



Mespilus grandiflora.
 March 1. 1808. Published by Jas. Sowerby, London.

THE HISTORY OF THE
PLANT KINGDOM
BY J. E. SMITH



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TAB. 18.

MESPIUS grandiflora.

*Large-flowered Barren Medlar.**ICOSANDRIA Pentagynia.*

Calyx in 5 segments. *Petals* 5. *Drupe* inferior. *Nuts* 2 to 5, with 2 seeds each.

Thorns none. Leaves elliptic-oblong, slightly downy, unequally serrated. Flowers nearly solitary, terminal. Styles three.

THIS tree, which blossoms in May, has long been cultivated in Chelsea garden by Mr. Fairbairn, who obtained cuttings many years ago from a small garden in that neighbourhood, but could not learn the native country of the parent plant, nor even from whence it had been procured. At first sight it has more resemblance to the common *M. germanica* than to any thing else, agreeing with it in height, and nearly in the size of the flowers, which far exceed those of any species besides. They are also generally solitary, two being rarely found together, terminating the young lateral branches on short stalks. But the differences between these two species are very essential. The leaves of this are always much serrated, and of a harsher firmer texture; the styles are never more than three, sometimes only two; the fruit, seldom perfected here, is small, reddish, with little pulp, containing 2 or 3 hard seeds agreeing with the number of the styles. According to the Linnæan System this should be a *Cratægus*, and it affords a fresh instance of the propriety of reducing the species of that genus to *Mespilus* or *Pyrus*, according to the structure of the fruit of each.

We can find no description of this plant in any author, nor is it among any of the specimens published by Ehrhart that have come to our knowledge. In the English gardens in general, though richer in this tribe than those of any other country, it is unknown.

a perpendicular section of the calyx and germen, with stamens and styles. *b* a petal.

TAB. 18.

MESPILUS grandiflora.

Large-flowered Barren Alder.

ICOSANDRIA Pentagynia.

Calyx in 5 segments. Petals 5. Drupe inferior. Styles 2 to 5, with 2 seeds each.

Thorns none. Leaves elliptic-oblong, slightly downy, unequally serrated. Flowers nearly solitary, terminal. Styles three.

THIS tree, which blossoms in May, has long been cultivated in Chelsea garden by Mr. Fairbairn, who obtained cuttings many years ago from a small garden in that neighbourhood, but could not learn the native country of the parent plant, nor even from whence it had been procured. At first sight it has more resemblance to the common *A. germanica* than to any thing else, agreeing with it in height, and nearly in the size of the flowers, which far exceed those of any species besides. They are also generally solitary, two being rarely found together, terminating the young lateral branches on short stalks. But the difference between these two species are very essential. The leaves of this are always much serrated, and of a harsher finer texture; the styles are never more than three, sometimes only two; the fruit, seldom perfected here, is small, reddish, with little pulp, containing 2 or 3 hard seeds agreeing with the number of the styles. According to the Linnaean system this should be a *Crataegus*, and it affords a fresh instance of the propriety of reducing the species of that genus to *Staphylea* or *Lyonia*, according to the structure of the fruit of each.

We can find no description of this plant in any author, nor is it among any of the specimens published by Fairbairn that have come to our knowledge. In the English gardens in general, though not in this tribe than those of any other country, it is unknown.

a perpendicular section of the calyx and pistil, with remains of styles. A petal.





TAB. 19.

BIGNONIA undulata.

*Wave-leaved Orange Trumpet-flower.**DIDYNAMIA Angiospermia.*

Calyx cup-shaped, 5-cleft. *Corolla* 5-cleft, with a bell-shaped tube, swelling beneath. *Pod* of 2 cells. *Seeds* with a membranous wing.

Leaves simple, lanceolate, waved, entire. Flowers terminal, umbellate. Stem erect.

CAPTAIN HARDWICKE discovered this noble species of *Bignonia* in the northern forests of Hindustan, from whence he conveyed living plants to the botanic garden at Calcutta, naming it *undulata* from the appearance of the leaves. It grows to a large tree, flowering in March and April, and ripening seeds in May. The provincial name *Suna Mookee* means golden-mouthed.

It appears to be entirely nondescript, as far as we have been able to discover, and should stand near the *B. linearis* of Cavanilles, *Ic. v. 3. 35. t. 269*, from which it is distinguished by its greater size, broader undulated leaves, and orange, not rose-coloured, flowers, whose lobes are flat, not crisped or waved. The leaves are numerous, scattered, on slender stalks, acute, entire, smooth. Flowers in terminal simple umbels, accompanied by small lanceolate bractees. *Calyx* slightly downy, in 5 shallow segments. *Corolla* large, short and spreading. Stamens 4, with an abortive twisted filament besides. *Pod* a foot long, linear, acute, smooth.

a, a are pieces of the partition of the pod. *b* a portion of the same with seeds in their places. *c* a seed.

TAB. 19.

RIGNONIA undulata.

Wart-leaved Orange Tree-plant.

DIDYMANIA angustifolia.

Calyx cup-shaped, 5-lobed. Corolla 5-lobed, with a bell-shaped tube, swelling beneath. Pod of 2 cells. Seeds with a membranous wing.

Leaves simple, lanceolate, wavy, entire. Flowers terminal, umbellate. Stem erect.

CAPTAIN HARDWICK discovered this noble species of Rignonia in the northern forests of Hindustan, from whence he conveyed living plants to the botanic garden at Calcutta, naming it undulata from the appearance of the leaves. It grows to a large tree, flowering in March and April, and ripening seeds in May. The provincial name Sana Meeer means golden-rounded.

It appears to be entirely undescribed, as far as we have been able to discover, and should stand near the Rignonia of Cavendish, Ac. v. 3. 33. t. 289, from which it is distinguished by its greater size, broader undulged leaves, and orange, not rose-colored, flowers, whose lobes are flat, not striped or wavy. The leaves are numerous, scattered, on slender stalks, acute, entire, smooth. Flowers in terminal simple umbels, accompanied by small lanceolate bracts. Calyx slightly downy, in 5 shallow segments. Corolla large, short and spreading. Stamens 4, with an oblique twisted filament besides. Pod a foot long, thick, round, smooth.

As a piece of the position of the pod. A portion of the same with seeds in their places. A seed.



Tetratheca ericifolia.

March 1805. Published by J. Sowerby London.



TAB. 20.

TETRATHECA ericifolia.

*Heath-leaved Tetratheca.**OCTANDRIA Monogynia.*

Calyx 4-cleft, inferior. *Petals* 4. *Antheras* with 4 cells.

Capsule of 2 cells and 2 valves, with the partition from their middle. *Seeds* about 2 in each cell.

Leaves whorled, linear, revolute, minutely toothed. Stem rough with ascending bristles. Flower-stalks and calyx very smooth.

ONE species only of this genus has been made known to botanists, *T. juncea*, *Bot. of New Holland*, tab. 2, *Willden. Sp. Pl. v. 2.* 321. The character of the 4-celled antheras, opening by pores at the end of a tubular point, is very peculiar. This structure indicates an affinity to the *Ericæ*, but they have only 2 cells.

The root of *T. ericifolia* is somewhat woody, and probably perennial, for some of our specimens have evidently been burnt to the ground in consequence of the fires made by the savages of New South Wales, its native country, and have grown up again. The stems are several, a span high, simple or branched, leafy, round, clothed with small upright bristles. Leaves 4 or 5 in a whorl, sessile, short, linear, revolute, their edges, and sometimes their upper surface near the point, rough with minute teeth. Flower-stalks axillary, solitary, simple, single-flowered, longer than the leaves, curved, quite smooth, round and naked. Flowers drooping. Calyx smooth, obtuse. Petals obovate, rose-coloured, occasionally white. Antheras oblong, smooth, purplish brown, all equal, with whitish tips. Germen superior. Style and stigma simple. Capsule pendulous, ovate, acute, compressed, of 2 flattish valves, with a contrary partition running down their middle. Seeds mostly 2 in each cell, oblong, compressed, on short stalks.

A a magnified petal. B flower-stalk, calyx, germen and style with 1 stamen remaining. C anthera cut across. D capsule. E seed.

TAB. 20.

TETRATHECA ericifolia.

Heath-leaved Tetratheca.

OCTANDRIA Monogynia.

Calyx 4-lobed, inferior. Petals 4. Anthers with 4 cells.
Capsule of 2 cells and 2 valves, with the partition from their
middle. Seeds about 2 in each cell.

Leaves whorled, linear, revolute, minutely toothed. Stem rough
with ascending bristles. Flower-stalks and calyx very smooth.

ONE species only of this genus has been made known to botanists,
T. *ericifolia*, Bot. of New Holland, tab. 2, Willden. Sp. Pl. v. 2. 321.
The character of the 4-lobed anthers, opening by pores at the end
of a tubular point, is very peculiar. This structure indicates an affinity
to the Ericaceae, but they have only 2 cells.

The root of *T. ericifolia* is somewhat woody, and probably perennial, for some of our specimens have evidently been burnt to the ground in consequence of the fire which the natives of New South Wales, its native country, and have grown up again. The stems are several, a span high, simple or branched, leafy, round, clothed with small upright bristles. Leaves 4 or 5 in a whorl, sessile, short, linear, revolute, their edges, and sometimes their upper surface near the point, rough with minute teeth. Flower-stalks axillary, solitary, simple, single-flowered, longer than the leaves, curved, quite smooth, round and naked. Flowers drooping. Calyx smooth, obtuse. Petals obovate, rose-coloured, occasionally white. Anthers oblong, smooth, purplish brown, all equal, with whitish tips. Germen superior. Style and stigma simple. Capsule pedicelled, ovate, acute, compressed, of 2 lateral valves, with a contrary partition running down their middle. Style mostly 2 in each cell, oblong, compressed, on short stalks.

A magnified petal. B flower-stalk, calyx, germes and style with 1 stamen remaining. C anthers cut across. D capsule.



Tetratheca glandulosa

March 1. 1856. Published by Jas. Sowerby, London.



Thymus serpyllifolius
L.

TAB. 21.

TETRATHECA glandulosa.

Glandular Tetratheca.

OCTANDRIA Monogynia.

Calyx 4-cleft, inferior. *Petals* 4. *Antheras* with 4 cells.
Capsule of 2 cells and 2 valves, with the partition from their
 middle. *Seeds* about 2 in each cell.

Leaves imperfectly whorled, lanceolate, revolute, toothed with
 little spines. Stem downy. Flower-stalks and calyx rough
 with glands.

VERY like the preceding, along with which it was brought from
 New South Wales. It has shared the same fate of being burnt
 down to the root, and has grown up again.

The stem is clothed with very short close down, totally different
 from the bristly covering of the last, while on the contrary the
 flower-stalks and calyx are not smooth, but covered with glandular
 horizontal hairs. The leaves are less perfectly whorled, being often
 opposite only, sometimes scattered or alternate; their margin is beset
 with little spines. In the parts of the flower, except the calyx,
 little difference is observable; the antheras are perhaps of a darker
 colour throughout.

The species of this genus would be a very desirable acquisition to
 the gardens. Whether the seeds have not been collected, or whether
 they will not bear so long a voyage, we have never heard of any of
 the plants being raised in Europe.

A a petal. B calyx, germen, style, 1 stamen, and a part of the
 flower-stalk.

TAB. 31.

TETRATHECA glandulosa.
Glandular Tetrathea.

OCTANDRIA Monogynia.

Calyx 4-lobed, inferior. Petals 4. Anthers with 4 cells.
Capsule of 2 cells and 2 valves, with the partition from their
middle. Seeds about 2 in each cell.

Leaves imperfectly whorled, lanceolate, revolute, toothed with
fine spines. Stem downy. Flower-stalks and calyx rough
with glands.

VERY like the preceding, along with which it was brought from
New South Wales. It has shared the same fate of being burnt
down to the root, and has grown up again.

The stem is clothed with very short close down, totally different
from the bristly covering of the last, while on the contrary the
flower-stalks and calyx are not smooth, but covered with glandular
horizontal hairs. The leaves are less perfectly whorled, being often
opposite only, sometimes scattered or alternate; their margin is beset
with little spines. In the parts of the flower, except the calyx,
little difference is observable; the anthers are perhaps of a darker
colour throughout.

The species of this genus would be a very desirable acquisition to
the garden. Whether the seeds have not been collected, or whether
they will not bear so long a voyage, we have never heard of any of
the plants being raised in Europe.

A petal. B calyx, germen, style, 1 anther, and a part of the
flower-stalk.



Tetratheca thymifolia

March 1. 1805. Published by J. Sowerby, London.



Thalictrum flavum

TAB. 22.

TETRATHECA thymifolia.

Thyme-leaved Tetratheca.

OCTANDRIA Monogynia.

Calyx 4-cleft, inferior. *Petals* 4. *Antheras* with 4 cells.
Capsule of 2 cells and 2 valves, with the partition from their
 middle. *Seeds* about 2 in each cell.

Leaves whorled, lanceolate, toothed with little spines. Stem,
 flower-stalks and calyx rough with ascending bristles.

TO complete the history of this very pretty genus, as far as hitherto discovered, and at the same time to show how precisely and curiously Nature has distinguished the species, though three of them are much alike, to an inaccurate observer, we here exhibit the Thyme-leaved Tetratheca.

It is somewhat larger than either of the two foregoing, and distinguishable at first sight by its broader less revolute leaves. In the hairs of the stem it agrees with *T. ericifolia*, but differs from both the preceding in having the same kind of hairs covering the flower-stalk and calyx. The segments of the last-mentioned part are also more acute than in the other species. The margins of the leaves are slightly toothed, each tooth bearing a small spine or bristle. The germen is round, compressed, and smooth, though the receptacle is hairy we believe in all three.

Tab. 22. A shows a magnified petal. B flower-stalk, calyx, stamens, germen and style.

TAB. 22.

TETRAATHECA thymifolia.
Thyme-leaved Tetraatheca.

OCTANDRIA Monogynia.

Calyx 4-lobed, inferior. Petals 4. Anthers with 4 cells.
Capsule of 2 cells and 2 valves, with the partition from the
middle. Seeds about 2 in each cell.
Leaves whorled, lanceolate, toothed with fine spines. Stem,
flower-stalks and calyx rough with ascending bristles.

To complete the history of this very pretty genus, as far as I have
discovered, and at the same time to show how precisely and correctly
Nature has distinguished the species, though those of them are much
alike, to an inaccurate observer, we here exhibit the Thyme-leaved
Tetraatheca.
It is somewhat larger than either of the two foregoing, and dis-
tinguishable at first sight by its broader less revolute leaves. In the
base of the stem it agrees with *T. angustifolia*, but differs from both
the preceding in having the same kind of hairs covering the flower-
stalk and calyx. The segments of the last-mentioned part are also
more acute than in the other species. The margins of the leaves are
slightly toothed, each tooth bearing a small spine or bristle. The
germen is round, compressed, and smooth, though the torus is
 hairy we believe in all three.

Tab. 22. A shows a magnified petal. B flower-stalk, calyx, etc.
view, germen and style.



Mirabilis longiflora

April 1. 1808. Published by Jas. Sowerby, London.



Chenopodium
serotinum

TAB. 23.

MIRABILIS longiflora.

*Long-flowered Marvel of Peru.**PENTANDRIA Monogynia.*

Calyx inferior, 5-cleft. *Corolla* funnel-shaped; its base inflated and permanent. *Nectary* a gland surrounding the germen. *Nut* solitary, with 1 seed.

Flowers clustered, terminal, very long, slightly drooping.
Leaves downy.

Mirabilis longiflora. Linn. *Sp. Pl.* 252. *Act. Holm. ann.* 1755. 176. *t.* 6. *Amœn. Acad.* v. 4. 268. *Willden.* *Sp. Pl.* v. 1. 999. *Ait. H. Kew.* v. 1. 235.

Atzoyatl, Mirabili Mexicana. *Hernand. Mex.* 170.

IT is strange that no coloured figure of this elegant flower has ever been published, more especially as its history is interesting, and its beauty and fragrance render it highly worthy of general notice.

The celebrated Monsieur le Monnier seems to have introduced it to the knowledge of Europæan botanists about the middle of the last century, having probably procured its seeds from some of his astronomical friends who went to South America; and from him, through the hands of Baron Munckhausen, they came to Linnæus, who was so pleased with the plant, that he honoured it with a particular account and description, accompanied by a splendid figure, in the Stockholm Transactions for 1755. Miller had it in the Chelsea garden in 1759, as appears from his dictionary, and it is still cultivated there in profusion, though not so general in gardens as some others of the genus. If the synonym of Hernandez really belongs to it, which his bad figure renders somewhat doubtful, we learn from him that it grows wild in the colder and mountainous parts of Mexico, flowering in September.

In our gardens, if raised on a hot bed, like the tender kinds of annuals, in the spring, it flowers abundantly in autumn. It will

even sow itself spontaneously, and, in favourable seasons, come up in the open border; but such plants bloom very late, and scarcely perfect seed. The best method is to take up the roots at the first frosts, preserve them in dry sand through the winter, and plant them in April or May. They will by this method produce luxuriant plants year after year, and flower much earlier than by the former method. The flowers expand in the evening, and last only one night; but there is a copious succession of them throughout the autumn, and if gathered just above the calyx, a few of them in water will powerfully perfume a large apartment.

Linnæus in a manuscript note now before me has the following remark: "The pollen of this plant is very large, globular, yellow, hanging by a little thread, and neither falling off nor bursting, but wasting away; for the corolla when closed presses it to the stigma, while the *papillæ* of the latter attach themselves each to a particle of the pollen, and imbibe it." This is somewhat analogous to the Orchis tribe, and may possibly help to explain the impregnation of plants under water, where there can be no explosion of the pollen as in a dry atmosphere.

The root of the *Mirabilis longiflora* is large and fleshy. Stem 3 or 4 feet high, repeatedly forked, spreading, round, downy, leafy. Leaves opposite, heart-shaped, entire, soft, downy and viscid; the lower ones on foot-stalks; the rest sessile. Flowers many together, sessile at the top of each branch, downy and viscid externally. Calyx bell-shaped, acute, very clammy and fœtid. Tube 4 inches long, purplish. Limb white, plaited and notched, with 5 green external folds, the orifice of a beautiful purple. Stamens and style like long silky threads. Stigma large, formed of a globular tuft of hairs. One large tessellated nut or seed, farinaceous within, succeeds each flower. The corolla is really inferior, but its permanent base, becoming hard and attached to the seed, gives it, in an advanced state, the appearance of being superior, as Linnæus describes it.

The natural order of this genus is not easily determined. The learned Jussieu notes its affinity in some points to the *Amaranthus* tribe, and has been induced to call the corolla an inner calyx; which seems paradoxical, chiefly because there is a true calyx besides. In structure the part in question is more like a calyx than that of the *Polygonum*, and the farinaceous seed betrays an affinity to that genus as well as to the *Amaranthi*, rather than to the *Dipsacæ*.

a is a ripe seed. *b* a section of the same.



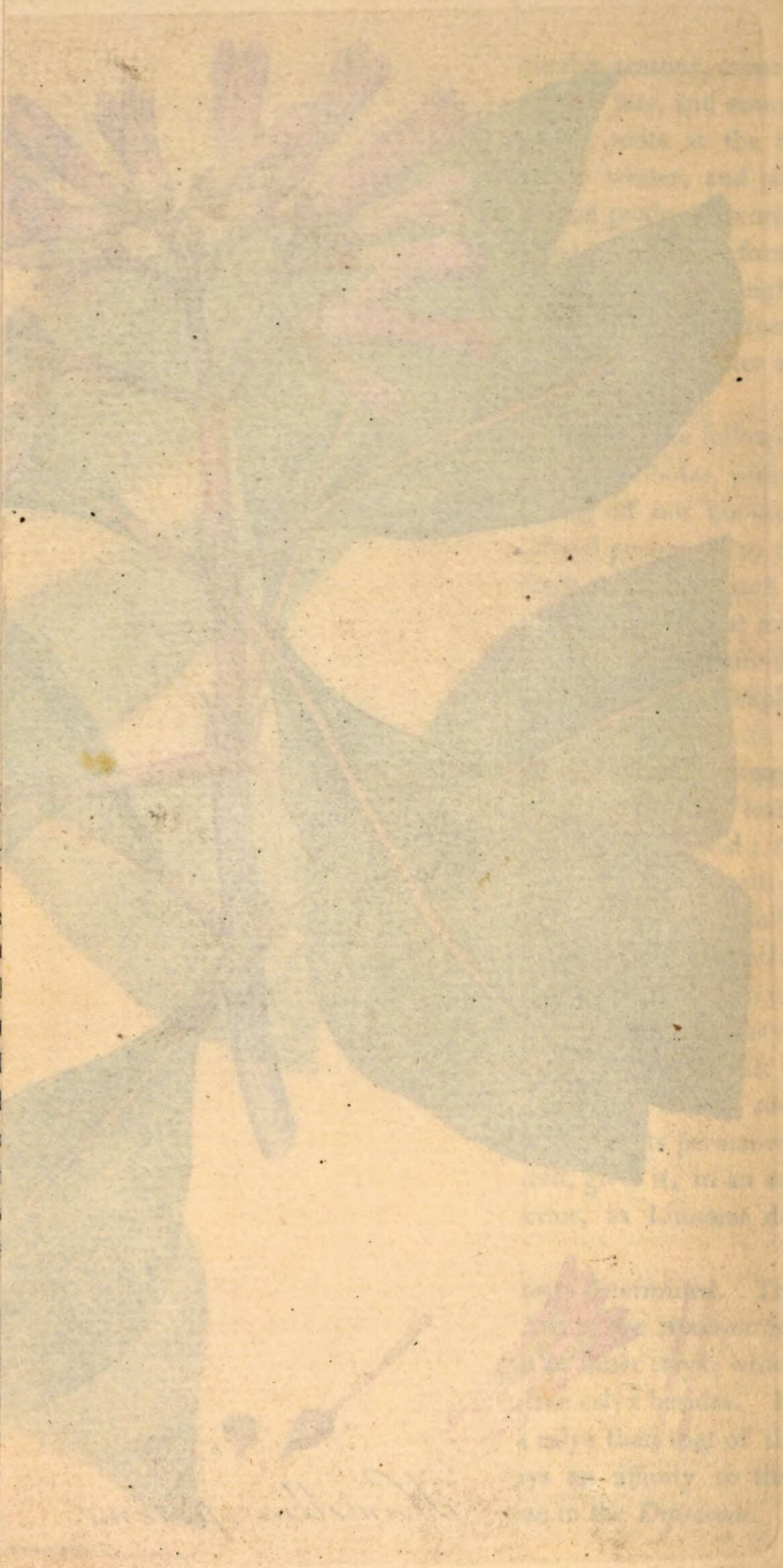
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TAB. 24.

HAMELLIA patens.

*Spreading Scarlet Hamellia.**PENTANDRIA Monogynia.*

Corolla tubular, 5-cleft. *Berry* inferior, with 5 cells and many seeds.

Clusters of flowers terminal, downy. Leaves three together, soft and downy, especially beneath.

Hamellia patens. Jacq. Amer. 72. t. 50. Linn. Sp. Pl. 246.

Willden. Sp. Pl. v. 1. 980. Swartz. Obs. 77. Lamarch.

Encycl. 68.

H. coccinea. Swartz. Prod. 46.

Periclymenum aliud arborescens, ramulis inflexis, flore corallino. Plum. Ic. 212. t. 218. f. 2.

DRAWN from a very fine plant of this species, brought from Jamaica, which flowered abundantly in Lady Hume's stove in October 1796. It is not mentioned in the *Hortus Kewensis*, nor is it to be found in many collections, though the younger Linnæus had a specimen from the royal garden at Paris in 1781. It is one of the two originally supposed species of the genus, named by Jacquin after Du Hamel, an excellent French writer on the structure and œconomy of plants; but the other, *H. erecta* of Jacquin, is now unanimously presumed to be a variety only. Dr. Swartz and other botanists have since made us acquainted with several new species.

The stem is shrubby, about 4 feet high, with round spreading leafy branches, downy when young. Leaves standing 3 together, on red downy foot-stalks, simple, elliptical, entire, tapering at each end, soft and pliable, slightly downy above, more so, as well as lighter coloured, beneath. The veins are numerous and parallel, reddish like the midrib and margin, above. Swartz has sometimes seen 4 or 5 leaves in a whorl. A pair of tapering stipulas stand

between each foot-stalk and the branch, as in all this natural order of *Rubiaceæ*. A compound cluster of flowers terminates each branch, the stalks of which are red, downy, and placed three together, each forked, and bearing many sessile scarlet flowers, in 2 rows, with a solitary one between them. Calyx of 5 small teeth crowning the germen. Corolla superior, cylindrical, with 5 furrows, an inch long, scarlet, 5-cleft at the orifice. Stamens connected with its base, equal, linear, smooth. Antheras vertical, linear, yellow. Germen inferior, globular, downy, red. Style the length of the stamens, bearing a club-shaped obtuse stigma. Berry black, crowned with the calyx.

Jacquin and Swartz both gathered this shrub on the bushy sides of mountains in Hispaniola, now more generally called St. Domingo. It thrives well in the bark bed of a stove, flowering for some weeks late in autumn.

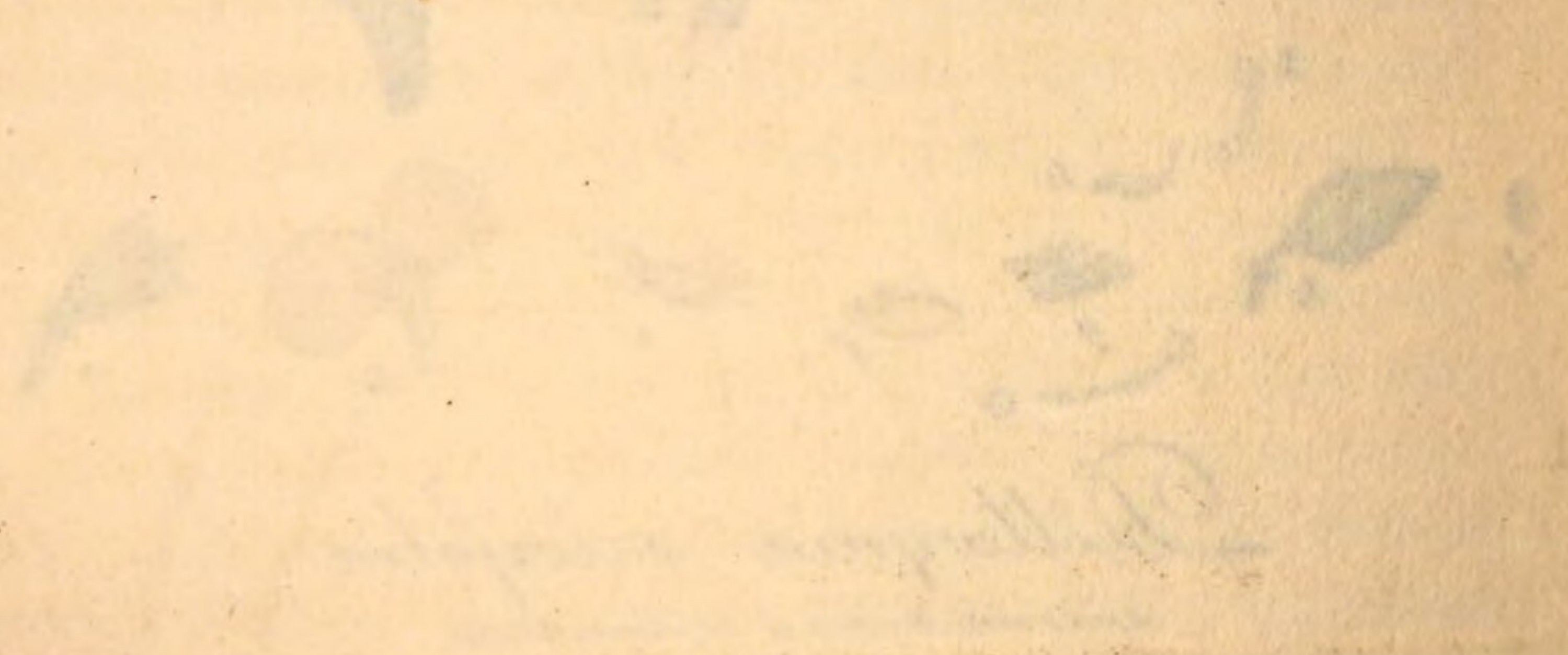
a shows the germen and style. *b* germen cut across. *c* corolla opened laterally. *d* stamens.



Dillwynia ericifolia

April 1. 1805. Published by Jas. Sowerby, London.

Faint, illegible text, likely bleed-through from the reverse side of the page.



TAB. 25.

DILLWYNIA *ericifolia*.*Heath-leaved Dillwynia.**DECANDRIA Monogynia.*

Calyx simple, 5-cleft, 2-lipped. *Corolla* papilionaceous.
Style reflexed. *Stigma* obtuse, downy. *Pod* inflated, of
 1 cell, with 2 seeds.

Leaves rough with minute points. Flowers at the ends of the
 branches.

Dillwynia ericifolia. *Smith in Annals of Bot. v. 1. 510.*

SEEDS of this shrub were among the first brought from New South Wales, and plants have been raised by many cultivators about London. Our drawing was made so long ago as April 1795, from a specimen produced under the care of Mr. Hughes at Stockwell. No figure of the plant has yet appeared, nor has its genus, of which we now know 3 species, been settled till very lately. It takes its name from Mr. Lewis Weston Dillwyn, F. L. S., author of an excellent periodical work on the *Confervæ*.

The stem is shrubby, much branched, spreading; the branches rigid, leafy, downy. Leaves scattered, spreading, on short foot-stalks, narrow, linear, acute, entire, revolute, twisted so that the under side, which is convex, and rough all over with minute points, is turned uppermost; the other side is channelled. Mr. Sowerby has observed a minute red glandular appearance on each side of the foot-stalk at the base, looking like stipulas, but we can find no traces of such in the dried plant. The flower-stalks are clustered about the summits of the branches, each having a pair of concave bracteas, and bearing one flower. Calyx bell-shaped, smooth, without appendages, angular, its 2 upper segments larger than the rest and divaricated, forming the upper lip; the lower lip is of 3 equal segments. Standard very peculiar, almost of a kidney shape, being

very broad and short; its colour is a full yellow with a central stain of crimson; the claw is greenish. Wings and keel both toothed on the upper side near the base, variegated with purple and yellow. Stamens 10, all separate, equal and awl-shaped. Anthers yellow, round. Germen oblong, hairy. Style bent upwards, thick and short, crowned with a blunt, or capitate, downy stigma. Pod ovate, swelling, black, hairy towards the point, of one cell, mostly containing 2 seeds which occupy but a small part of the cavity.

The short reflexed style, and, above all, the blunt downy stigma, distinguish this genus from the other papilionaceous plants with 10 separate stamens. See *Annals of Botany* above quoted.

A leaf magnified. B stipulas? c calyx. d standard. e a wing. f keel. g, G stamens. h germen and style. I style and stigma magnified. k pod. l seed.



Dillwynia floribunda

May 1. 1805. Published by Jas. Sowerby, London.



Callitriche flavescens
L.

TAB. 26.

DILLWYNIA floribunda.

*Close-flowered Dillwynia.**DECANDRIA Monogynia.*

Calyx simple, 5-cleft, 2-lipped. *Corolla* papilionaceous.
Style reflexed. *Stigma* obtuse, downy. *Pod* inflated,
 of 1 cell, with 2 seeds.

Leaves rough with tubercles. Flowers lateral, axillary.

Dillwynia floribunda. *Smith in Annals of Bot. v. 1. 510.*

DRAWN some years since from the collection of the late Benjamin Robinson Esq. of Stockwell. It is, like the foregoing, a native of New South Wales, growing in dry sandy soil, and flowering with us in spring or summer, requiring a greenhouse, and rather dry treatment.

Stem 5 or 6 feet high, shrubby, branched; the branches ascending, round, hairy, thickly clothed with leaves placed without order, and less spreading than in *D. ericifolia*. The leaves are also somewhat broader than in that species, rough with coarser tubercles, and often hairy. We find no traces of stipulas. The flowers are not terminal, but grow in great numbers along the branches, each simple flower-stalk, with a pair of bracteas, springing solitary from the bosom of a leaf. The calyx resembles the last. The corolla is yellow, with less vivid crimson stains, and its standard is not quite so short and broad. Pod very hairy.

a calyx, flower-stalk and bracteas. *b* standard. *c* one of the wings. *d* keel. *e* stamens. *f*, *F* germen, style and stigma.

TAB. 26.

DILLWYNIA floribunda.

Close-flowered Dillwynia.

DECAPODRIA Moresbyana.

Calyx simple, 5-lobed, 2-lipped. Corolla papilionaceous.
Style reflexed. Stigma obuse, downy. Pod inflated,
of 1 cell, with 2 seeds.

Leaves rough with tubercles. Flowers lateral, axillary.
Dillwynia floribunda. Smith in Journal of Bot. v. 1. p. 510.

DRAWN some years since from the collection of the late Benjamin Robinson Esq. of Stockwell. It is, like the foregoing, a native of New South Wales, growing in dry sandy soil, and flowering with us in spring or summer, requiring a greenhouse, and rather dry treatment.

Stem 3 or 4 feet high, shrubby, branched; the branches ascending, round, hairy, thickly clothed with leaves placed without order and less spreading than in *D. viscidifolia*. The leaves are also somewhat broader than in that species, rough with coarser tubercles, and often hairy. We had no traces of stipules. The flowers are not terminal, but grow in great numbers along the branches, each on a single flower-stalk, with a pair of bractes, springing solitary from the base of a leaf. The calyx resembles the last. The corolla is yellow, with its vivid crimson stains, and its standard is not quite so short and broad. Pod very hairy.

a calyx, flower-stalk and bractes. A standard. c one of the wings. d keel. e anthers. f filament, style and stigma.

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TAB. 27.

VIMINARIA denudata:

Leafless Rush-Broom.

DECANDRIA Monogynia.

Calyx angular, simple, 5-cleft. *Corolla* papilionaceous. *Stigma* simple, acute. *Pod* leathery, of 1 valve, not bursting, entirely filled with a single seed.

Viminaria denudata. Smith in *Annals of Bot.* v. 1. 507.

Daviesia denudata. Ventenat *Choix de Plantes*, t. 6.

Sophora juncea. Schrad. *Sert. Hannov.* 9. t. 3.

Pultenæa juncea. Willden. *Sp. Pl.* v. 2. 506. Donn. *Cant.* 76.

THIS remarkable shrub we also obtained from the collection at Stockwell in July 1794, when it was in full flower. The seeds came from Port Jackson very soon after the settlement of that colony, and were dispersed through the gardens of Europe, where they have generally succeeded, and yet the plant is not now common in green-houses, perhaps from its being more singular than ornamental. Dr. Schrader figured it long ago as a *Sophora*, the genera of this tribe not being then understood. Monsieur Ventenat, in his new uncoloured work called *Choix de Plantes*, has reduced it to my genus of *Daviesia*, not being well acquainted with the pod, which decidedly establishes it as a new genus, and this its whole aspect confirms. The name alludes to the peculiar habit, being derived from *vimen* a pliant slender twig, which meaning we have attempted to retain in the English denomination.

The stem is branched and shrubby, round and smooth. Leaves only to be found on the lower part of seedlings or young plants, alternate, on long stalks, ovate, entire, three-nerved, smooth, the first sometimes ternate. The foot-stalks on the greater part of the plant bear no leaves, but are very long and slender, cylindrical, smooth, a little notched at the point, looking like a profusion of

naked rushy twigs, and giving a very peculiar aspect to the plant; the upper ones are gradually shorter.

Flowers yellow variegated with red, in long, simple, terminal clusters, on simple alternate stalks, each of which has a small bractea at its base. Calyx bell-shaped, angular, with 5 shallow teeth. Standard inversely heart-shaped. Wings and keel toothed at the base. Lower stamens gradually longest. Germen smooth, oval. Style awl-shaped, ascending, with a sharp simple stigma. Pod half covered by the permanent calyx, oval, acute, a little compressed, smooth, leathery, of one piece and not bursting, its cavity filled by a single kidney-shaped seed, of a very pale brown.

a calyx, flower-stalk and bractea. *b* standard. *c, c* wings. *d* keel. *e, E* stamens. *f* germen and style. *g* pod and seed.

This remarkable shrub we also obtained from the collection at Stockholm in July 1794, when it was in full flower. The seeds came from Port Jackson very soon after the settlement of that colony, and were dispersed through the gardens of Europe, where they have generally succeeded, and yet the plant is not now common in green-houses, perhaps from its being more singular than ornamental. Dr. Schrader figured it long ago as a *Sophora*, the genus of this tribe not being then understood. Monsieur Ventenat, in his new uncoloured work called *Choix de Plantes*, has reduced it to my genus of *Danxia*, not being well acquainted with the pod, which decidedly establishes it as a new genus, and this its whole aspect confirms. The name alludes to the peculiar habit, being derived from *twice a plant slender twig*, which meaning we have attempted to retain in the English denomination.

The stem is branched and shrubby, round and smooth. Leaves only to be found on the lower part of seedlings or young plants, alternate, on long stalks, ovate, entire, three-nerved, smooth, the first sometimes sessile. The foot-stalks on the greater part of the plant bear no leaves, but are very long and slender, cylindrical, smooth, a little notched at the point, looking like a projection of



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TAB. 28.

PASSIFLORA suberosa.

*Cork-bark'd Passion-flower.**PENTANDRIA Trigynia.*

Corolla 5- or 10-cleft. *Nectary* guarded by a triple radiated crown. *Organs* of fructification on a stalk. *Berry* with many seeds.

Corolla five-cleft. *Calyx* none. *Fruit* oval. *Leaves* three-lobed, smooth. *Foot-stalks* with two glands.

Passiflora suberosa. *Linn. Sp. Pl.* 1358. *Ait. Hort. Kew.* v. 3. 309. *Jacq. Hort. Vind.* v. 2. 77. t. 163. *Cavan. Monadelph.* 442. t. 265.

AS this pretty Passion-flower, so remarkable for the 4 prominent ribs of cork which run along its stem, has not yet appeared in any of our popular works, and as its history has not been perfectly elucidated, we would not refrain from publishing it, though already well figured in Jacquin's *Hortus Vindobonensis*, a work to which few botanists can have access on account of its great rarity and exorbitant price.

We can positively assert it, on the authority of the original specimen described in *Sp. Plant. ed. 1*, to be the *suberosa* of Linnæus: but Jacquin and Cavanilles have justly animadverted on the confusion of its synonyms, and Lamarck, though generally an acute critic, has in his *Encyclopédie*, v. 3. 38. n^o. 22, increased that confusion. Cavanilles esteems it also the *nigra* of that writer and of Jacquin's *Observationes*; which seems probable: but if so, how came that synonym to be omitted in the *Hort. Vind.*?

This species comes from the West Indies, and grows well in the bark bed of a stove, climbing round any thing in its way, bearing flowers and fruit through the autumnal months. We have delineated it from Lady Hume's collection.

It belongs to that tribe of Passion-flowers, pointed out by Mr. Sowerby in the *Transactions of the Linn. Soc.* v. 2. 27, which have only 5 lobes to the corolla, without any of those leaves on the flower-stalk which Linnæus takes for bracteas, but which seem, by analogy of other species, a real calyx.

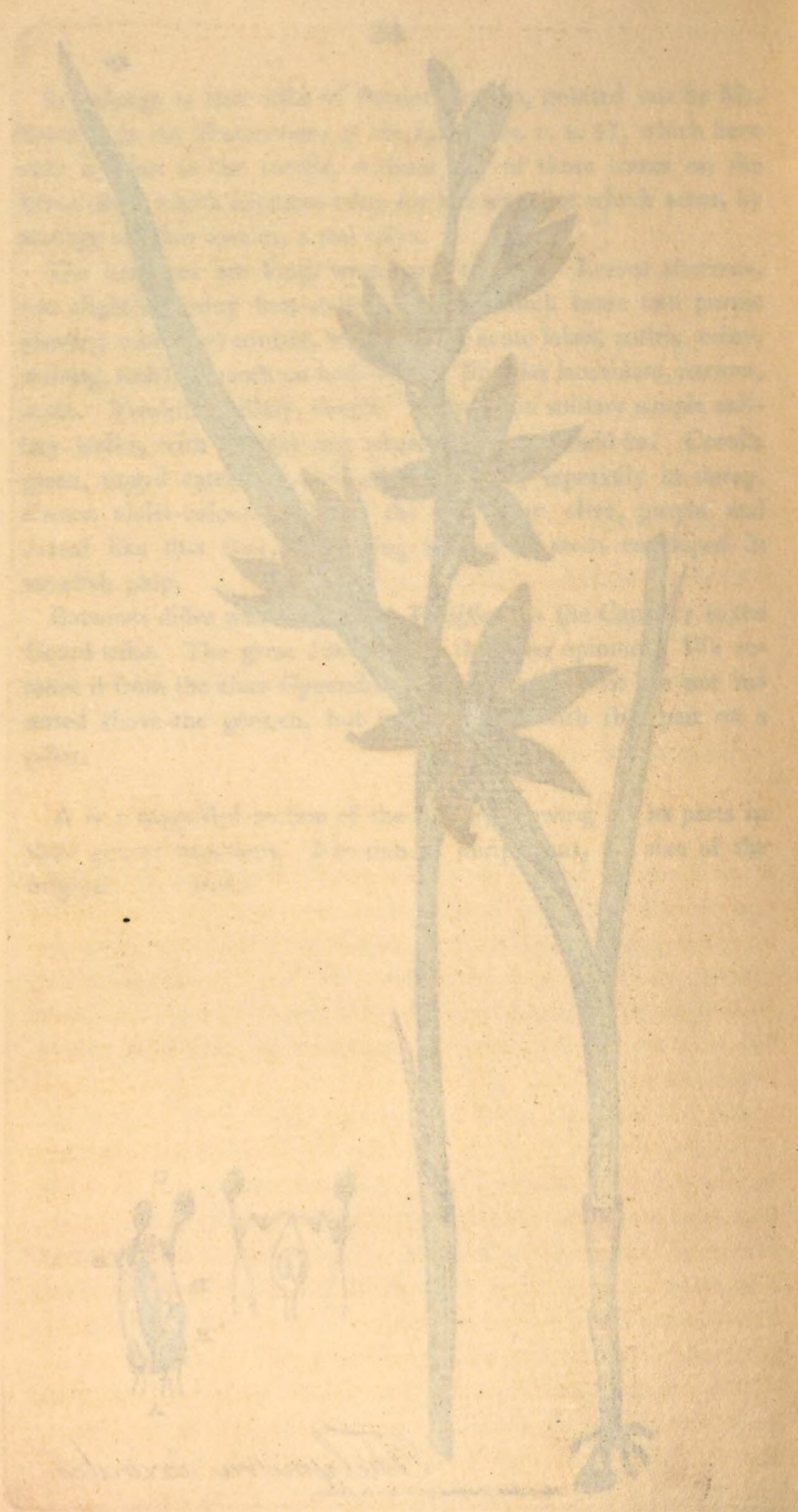
The branches are long, weak, and smooth. Leaves alternate, (on slightly downy foot-stalks, each of which bears two purple glands,) somewhat cordate, with 3 slight acute lobes, entire, veiny, shining, nearly smooth on both sides. Stipulas lanceolate, narrow, acute. Tendrils axillary, simple. Flowers on solitary simple axillary stalks, with a slight ring where the calyx should be. Corolla green, tinged externally with a blush of red, especially in decay. Crown violet-coloured. Berry the size of an olive, purple and dotted like that fruit, containing 3 rows of seeds enveloped in sweetish pulp.

Botanists differ whether to refer *Passiflora* to the Caper or to the Gourd tribe. The great Jussieu is of the latter opinion. We remove it from the class *Gynandria* because the stamens are not inserted above the germen, but merely raised with that part on a pillar.

A is a magnified section of the flower, showing all its parts in their proper situations. *b* section of unripe fruit, the size of the original. *c, c* seeds.



Thelymitra icxioides



TAB. 29.

THELYMITRA *ixioides*.*Large-flowered Thelymitra.**GYNANDRIA Diandria.*

Petals 5, regular, spreading. *Nectary* a simple lip like a sixth petal. *Organs* of fructification enveloped in a hood bearing 2 feathery tufts. *Antheras* parallel.

Petals thrice as long as the hood, which is jagged at the top.

Thelymitra ixioides. Swartz in *Stockh. Trans.* for 1800.
228. t. 3. f. L, a, b, d—g.

FORSTER first established this genus, of the Orchis tribe, in his *Genera Plantarum*, where the flower of the only species he knew, of which I have a specimen from himself, is figured. His son was afterwards persuaded to reduce it to *Serapias*; but the excellent Swartz has justly restored it to the rank of a genus, adding a new species, which he received through my hands from New South Wales, and of which we are enabled to exhibit the annexed figure, by means of specimens and coloured drawings sent by Dr. White. It flowers in August in its native country, but has not yet been brought to England.

The root is said to be a bulb; probably like those of an Orchis, and throws out a few fibres at the top. Stem solitary 2 or 3 feet high, simple, round, leafy, smooth. Leaves sheathing, alternate, linear-lanceolate, acute, erect. Spike terminal, erect, many-flowered. Bractees solitary, lanceolate, pointed, membranous, concave. Flower-stalks slender, various in length. Flowers of a fine blue, paler at the back, formed of 5 spreading petals and a lip much resembling them. In the centre is a singular hood which envelopes the organs of fructification, and whose top is jagged and fringed, bearing a pair of feathery tufts elevated on stalks. The column

stands within this hood, and is acute, bearing 2 parallel antheras, each of one cell, beneath which is the stigma. A small inner lip stands opposite to the column. The germen is obovate.

The hood and its plumy tips, which are quite of a different nature from the 2 feathery petals of Jussieu's *Bipinnula*, (*Arethusa biplumata* of Linnæus, *Sm. Pl. Ic. t. 23*), afford an excellent generic distinction. Forster's species has smaller flowers, with an entire hood half as long as the petals. Our specimens and drawings of *T. ixioides* vary much in the size of the flowers, but we find no difference of structure to indicate a specific distinction.

A shows the hood and its contents magnified. B the jagged fringed summit. C feathery tips. D antheras. E small inner lip.

FORSTER first established this genus of the Orchis tribe, in his *Genera Plantarum*, where the flower of the only species he knew, of which I have a specimen from himself, is figured. His son was afterwards persuaded to reduce it to *Swartzia*; but the excellent Swartz has justly restored it to the rank of a genus, adding a new species, which he received through my hands from New South Wales, and of which we are enabled to exhibit the annexed figure, by means of specimens and colored drawings sent by Dr. White. It flowers in August in its native country, but has not yet been brought to England.

The root is said to be a bulb; probably like those of an Orchis, and throws out a few fibres at the top. Stem solitary 2 or 3 feet high, simple, round, leafy, smooth. Leaves sheathing, alternate, linear-lanceolate, acute, erect. Spike terminal, erect, many-flowered. Bractees solitary, lanceolate, pointed, membranous, concave. Flower-stalks slender, various in length. Flowers of a fine blue, paler at the back, formed of 2 spreading petals and a lip much resembling them. In the centre is a singular hood which envelops the organs of fructification, and whose top is jagged and fringed, bearing a pair of feathery tufts elevated on stalks. The column

TAB. 30.

DIURIS maculata.

*Yellow Spotted Diuris.**GYNANDRIA Diandria.*

Nectary a pendulous lip, without a spur. *Petals* 9; the 5 outermost largest, of 2 kinds. *Column* of the fructification reversed, the *lid* parallel.

Two lower petals lanceolate, twice as long as the lip; two upper rounded, obtuse, with long claws.

A NATIVE of New South Wales, like the other two species figured in *t.* 8 and 9 of this work, where it blossoms in July.

It is most allied to *D. aurea*, with which it agrees in size and general appearance, except that the flowering part of the stalk is, for the most part, more zigzag than in that species, and the flowers are widely different. All the petals, except the 2 lowest, are yellow irregularly spotted or stained with red, which spots are equally visible on the back and front, and in drying the red remains, while the yellow fades almost to white. The three uppermost petals are round and obtuse, the side ones having long claws; the 2 lowest or green petals generally cross each other, and are lanceolate, about twice as long as the lip. The other parts agree with *D. aurea*.

Perhaps these 2 green petals of *Diuris* ought to be esteemed a real calyx, though no such thing has hitherto been observed in the *Orchis* tribe; for it seems to us too paradoxical to call (with Jussieu) the whole corolla and lip a calyx, or even the former only, with Swartz; but this is matter of mere opinion.

A shows a magnified flower, in which all the parts are displayed as in *t.* 9.

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Diuris maculata

May 1. 1805. Published by Jas. Sowerby, London.



Plumula



Cyamus Velumbo.

June 1. 1805. Published by Jas. Sowerby, London.





Cyamus Nelumbo

June 1. 1805. Published by J. Sowerby, London.



Pyramus & Thisbe

TAB. 31, 32.

CYAMUS Nelumbo.

Sacred Bean of India.

POLYANDRIA Polygynia.

Calyx of 4 or 5 leaves. *Petals* numerous. *Nuts* immersed in a cellular receptacle, each crowned with its own *stigma*.

Leaves peltate, orbicular, waved. Foot-stalks and flower-stalks prickly.

Κύαμος. *Theophrast. lib. 4. cap. 10.*

Nymphæa Nelumbo. *Linn. Sp. Pl. 730, α. Ait. H. Kew. v. 2. 227.*

N. indica major. *Rumph. Amboin. v. 6. 168. t. 73.*

Nelumbo nucifera. *Gærtn. Sem. v. 1. 73. t. 19.*

Nelumbium speciosum. *Willden. Sp. Pl. v. 2. 1258.*

Tamará. *Rheed. Malab. v. 11. 59. t. 30.*

THIS splendid and celebrated plant is a native of still pools, and recesses in the margins of running streams, in the East Indies, growing, as Rumphius informs us, in a deep muddy soil, in a depth of water not less than 2 or 3 feet, nor more than 6. By attention to this information, and the contrivance of a deep tub in consequence of it, a plant of this species was made to flower very finely, some years ago, in the Duke of Portland's stove at Bulstrode, where Mr. Sowerby made a drawing of it. The *Cyamus* also blossomed last year at the Right Hon. Charles Greville's, and is to be found growing in several collections.

The root is very large and tuberous, black without, white within, throwing out numerous long fibres. Leaves radical, on long, round, prickly, upright stalks, peltate, circular, waved, smooth, rather glaucous, with many concentric radiating ribs; when young

they float on the water; but when at their full size, which is often 2 or 3 feet diameter, they rise 3 or 4 feet above it, becoming concave, and variously waved, twisted, or torn by the wind. Flowers on simple naked stalks, like those of the leaves, but rather taller, solitary, upright, very handsome and fragrant, 8 or 10 inches wide when fully expanded, lasting for several days. Calyx of 4 or 5 concave, ovate, green leaves. Petals numerous, ovate, acute, concave, of a delicate pale rose-colour, marked with many crimson longitudinal ribs, which being drawn more together as they approach the point, render that part of a deeper hue. Stamens numerous, yellow, thread-shaped, knobbed, with oblong, lateral anthers. Germen superior, green, smooth, inversely conical, its upper broad flat surface perforated with several holes, opening into as many cells. Each cell contains the rudiment of a seed, protruding through the orifice, and crowned with an oblong, obtuse, perforated, yellow, permanent stigma. The whole germen becomes a coriaceous entire capsule, which in process of time separates from the stalk, laden with ripe oval nuts, and floats down the water. The nuts vegetating, it becomes a cornucopia of young sprouting plants, which at length break loose from their confinement, and take root in the mud. This peculiar mode of propagation has evidently occasioned the plant, in conjunction with water, to be adopted as the symbol of fertility, in which point of view it has, from the remotest antiquity, been considered with religious veneration in India, and makes a conspicuous figure in the Mythology of that antient country. It is most generally known to the learned of Europe under the name of *Lotus*; the natives of Hindustan call it *Tamará*; the people of Ceylon *Nelumbo*. It has been confounded by very able writers, even lately, with the *Lotus* of Egypt, *Nymphæa Lotus* of Linnæus; see *Andr. Repos. t. 391*, and *Curt. Mag. t. 797*. We presume the latter to have become important in the Egyptian Mythology only as a substitute for the former. The *Lotus* of Egypt is a real *Nymphæa*, bearing its seeds much in the manner of a Poppy, and scattering them in the mud. There is nothing peculiar in its appearance or mode of growth which could have caused it to be chosen for an emblem of fertility, were it not from the general resemblance of its leaves and flowers to our plant, the original *Lotus* of India. Hence I have for some time presumed to deduce an argument in support of the doctrine now prevalent, on other grounds, that the religion of the Egyptians was adopted from the East.

Innumerable illustrations respecting the *Tamará*, *Lotus*, or *Nelumbo*, as connected with the poetry or religion of the Hindus, may be found in the learned works of Sir W. Jones, Mr. Knight, and others. In the 4th volume of the *Amœnitates Academicæ*, p. 234, a carved horn of a rhinoceros, sent to Linnæus from China, is described. This is now before me, and is an exquisite specimen of oriental sculpture, evidently alluding to the mythology of India. The whole inverted base of the horn is carved into an elegant leaf of *Nelumbo*, rising from the water amid a group of perforated Chinese rocks. It is encompassed with various plants of a more diminutive proportion; a peach tree and a medlar (or rather perhaps the mangostan), with *Sagittaria*, *Pothos*, and the *Nelumbo* itself in flower and seed, cover the outer surface. Some fantastic lizards, with bunches of grapes and the Lit-chi fruit in their mouths, are crawling over the whole.

We have to add some remarks on the botanical characters and name of this plant.

Adanson, Gærtner, Jussieu and Willdenow are most unquestionably justified in separating it from *Nymphæa*, with which Linnæus and other writers have confounded it. The very peculiar fruit, unlike any thing else in the vegetable kingdom, and the stigmas, so totally different from those of *Nymphæa*, sufficiently distinguish it. The chief question in dispute is the name. *Nelumbium* is formed from *Nelumbo*, a Ceylon word of very confined use. If it must have a barbarous appellation, *Tamará* would be preferable, as being in general use among the learned and the vulgar throughout Hindustan. Happily we have no occasion to adopt either, for the plant has already a classical Greek name of primary authority and antiquity, being the real *Κύαμος* of Theophrastus, and therefore the word *CYAMUS* is what by every right and title belongs to it. *Nelumbo* may be retained as a specific name, rather out of deference to Linnæus and Gærtner than for any good reason; for *Tamará* being more universal would be more proper, and *speciosus*, given by Willdenow, more expressive. We wish however to respect the right of priority, and to avoid all needless changes.

We claim no merit in the restoration of this antient generic name. Bodæus a Stapel in his Commentary on Theophrastus, p. 446, and Hermann in his *Paradisus Batavus* have amply illustrated the subject, and others, as Plukenet, have alluded to it. But it is remarkable that no recent writer on the mythological history of the *Nelumbo* should have been aware of its being the celebrated *Κύαμος* or Pytha-

gorean bean, which is so evident from the description in Theophrastus. The "cellular head like a round wasp's nest, with a bean in each cell projecting a little beyond its orifice: the rose-coloured flower, twice as large as a poppy," as well as all the rest of his account, are strikingly characteristic. By this discovery many things, hitherto difficult of explanation, are elucidated. We can no longer wonder at the prohibition of these beans to the Egyptian priests, or the disciples of Pythagoras. A plant consecrated to religious veneration as an emblem of reproduction and fertility, would be very improper for the food, or even the consideration, of persons dedicated to peculiar purity. The Egyptian priests were not allowed even to look upon it*. Authors scarcely explain sufficiently whether Pythagoras avoided it from respect or abhorrence. However that might be, we need not, in order to ascertain his motives, have recourse to any of the five reasons supposed by Aristotle, nor to the conjectures of Cicero. Neither can there be any doubt that the prohibition given by Pythagoras was literal; and not merely allegorical, as forbidding his followers to eat this kind of pulse, because the magistrates in some places were chosen by a ballot with black and white beans, thereby giving them to understand that they should not meddle with public affairs. Such far-fetched explanations show the ingenuity of commentators rather than their knowledge.

As the Pythagorean prohibitions are now obsolete, perhaps these beans, imported from India, might not be unwelcome at our tables. The root of the *Cyamus* is also used as food, but we have many vegetables preferable to it.

Tab. 31 shows a flower of its usual size, with one of the smaller leaves. *a* a stamen separate.

Tab. 32 contains the ripe fruit; with an outline of the whole plant as it grew at Bulstrode. *a* is a nut taken out of its cell. *b* a section of the same. *c* the embryo, always green, taken out of the nut, to the top of which its base was fixed. *d* the embryo sprouting from the nut.

* It must be confessed that many of the hieroglyphics, still to be seen about their temples, seem inconsistent with a prohibition of this kind.



Crassula lactea

June 1. 1808. Published by Jas. Sowerby, London.

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TAB. 33.

CRASSULA lactea.

*White Crassula.**PENTANDRIA Pentagynia,*

Calyx of 5 leaves. *Petals* 5. *Scales* 5 at the base of the germen. *Capsules* 5, with many seeds.

Stem shrubby. Leaves ovate, tapering and united at the base, entire, with a row of dots within the margin. Cymes panicled.

Crassula lactea. *Ait. H. Kew. v. 1. 396.* *Donn. Cant. 53.*
Willden. Sp. Pl. v. 1. 1554.

WE have been favoured with a flowering specimen of this plant from the green-house of Mr. Hooker of Norwich in March last. It is excellently well characterized in the *Hortus Kewensis*, but does not appear to have been figured by any author. We are informed in that work that it was introduced in 1774, by Mr. Masson, from the Cape of Good Hope.

It is cultivated, like other succulent plants of the Cape, in the dry stove or in some airy part of the green-house. The whole plant is smooth. Stem shrubby, much branched, round, leafy. Leaves crowded, crossing each other in pairs, thick, ovate, pointed, entire, dotted both above and below just within the margin; their bases tapering a little, and united round the stem. Panicle terminal, formed of many cymose opposite branches. Flowers white with pretty rose-coloured antheras. Scales at the base of the germen scarcely perceptible. Petals, stamens and germens often 6.

Tab. 33 shows the plant of its natural size, with every part of the flower in its proper place.

TAB. 33.

GRASSULA lactea.

White Grassula.

PENTANDRIA Pentagynia.

Calyx of 5 leaves. Petals 5. Scales 5 at the base of the
germen. Capricorn 5, with many seeds.

Stems shrubby. Leaves ovate, tapering and united at the base,
entire, with a row of dots within the margin. Cymes pa-
nicled.

Grassula lactea. Mr. J. Kew. v. 1. 308. Down. Coat. 53.
Willden. Sp. Pl. v. 1. 1554.

We have been favoured with a flowering specimen of this plant
from the green-house of Mr. Hooker of Norwich in March last.
It is excellently well characterised in the *Herbarium Kewense*, but does
not appear to have been figured by any author. We are informed
in that work that it was introduced in 1774, by Mr. Mason, from
the Cape of Good Hope.

It is cultivated, like other succulent plants of the Cape, in the
stove or in some airy part of the green-house. The whole plant is
amorphous. Stems shrubby, much branched, round, leafy. Leaves
crowded, crossing each other in pairs, thick, ovate, pointed, entire,
dotted both above and below just within the margin; their bases
tapering a little, and united round the stem. Panicle terminal,
formed of many cymose opposite branches. Flowers white with
pretty rose-coloured anthers. Scales at the base of the germen
scarcely perceptible. Petals, stamens and germen often 6.

Tab. 33 shows the plant of its natural size, with every part of
the flower in its proper place.

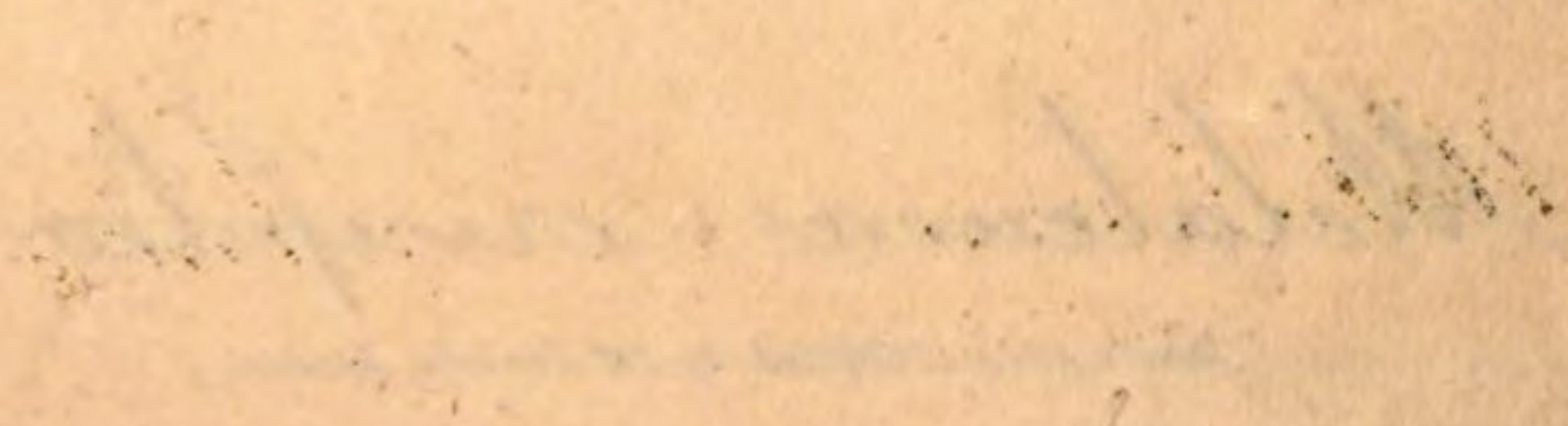


Melaleuca ericifolia

June 1. 1805. Published by Jas. Sowerby, London.

124

1-4.



TAB. 34.

MELALEUCA *ericifolia*.*Heath-leaved Melaleuca.*

POLYADELPHIA *Polyandria*.

Calyx 5-cleft, half superior. *Petals* 5. *Filaments* numerous, very long, united into 5 parcels. *Style* 1. *Capsule* of 3 cells.

Leaves scattered or opposite, linear, nerveless, pointless, a little recurved. Flowers lateral, clustered about the upper part of the branches.

Melaleuca ericifolia. Sm. *Trans. of Linn. Soc.* v. 3. 276.
Donn. Cant. 144.

MR. ANDREWS has by mistake figured under the name of *Melaleuca ericæfolia* my *armillaris*, *Tr. of L. Soc.* v. 3. 277, expressing a doubt of my having made too many species. For the illustration of the subject, and not for the sake of controversy, we here exhibit the true *M. ericifolia*, which will be followed by some other species, all natives of New Holland, of which we are furnished with specimens, as well as coloured drawings made from the plants in their wild state. Most of these plants are enumerated by Mr. Donn in his catalogue of the Cambridge garden, and I believe his names are very correct.

M. ericifolia is the smallest we have seen of this tribe, though of the exact height of the stem we are not informed. It is very smooth in all its parts, and has the taste and smell of Coriander seeds. The branches are numerous, clustered, erect, leafy, round, prettily striped with white, from a line of cuticle running down from one leaf to another. Leaves scattered, a few of them opposite, sessile, half an inch (more or less) in length, linear, flattish, entire, a little recurved, sharpish but without any spinous point, and destitute of rib or veins. Under the microscope they are finely dotted with ir-

regular glandular points. Stipulas wanting. Flowers sessile, lateral, crowded, forming cylindrical clusters round the branches below their leafy summits. Each flower has its own concave broad bractea. Calyx globular, dotted with resinous points, and crowned with 5 obtuse teeth. Petals red on the outside in the bud, cream-coloured, as well as the stamens, when expanded, dotted with resinous points. The filaments of the latter are long and very deeply divided, so that their common claw is shorter than the petals. In this respect they differ from *M. armillaris*, which species is so well figured by Mr. Andrews, that there is no occasion for us to republish it.

A is a magnified petal. B stamen. C germen and style. D leaf.

TAB. 35.

MELALEUCA nodosa.

*Knotty-flowered Melaleuca.**POLYADELPHIA Polyandria.*

Calyx 5-cleft, half superior. *Petals* 5. *Filaments* numerous, very long, united into 5 parcels. *Style* 1. *Capsule* of 3 cells.

Leaves scattered, linear, straight, tipped with spinous points.
Flowers clustered about the tops of the branches.

Melaleuca nodosa. Sm. *Trans. of Linn. Soc.* v. 3. 276.
Donn. Cant. 144.

Metrosideros nodosa. Gærtn. *Sem.* v. 1. 172. t. 34. f. 6.
Cavan. Ic. v. 4. 19. t. 334.

THIS is a rigid branched shrub 5 or 6 feet high, as we have seen it in the green-house of the Dowager Lady de Clifford, flowering in June. The bark is smooth and even, not at all striped. Leaves near an inch long, straight, rigid, tipped with a strong sharp spine, and having a longitudinal rib; their under side marked with a few glandular spots. Their flavour is aromatic, but not like that of the last. Flowers in short round spikes clustered about the tops of the branches, and after flowering each spike grows out into a branch, if it perfects seed. The stalk of each is hairy. Petals and filaments cream-coloured, with yellow antheras. The filaments are deeply divided as in the foregoing. How essentially different this is from the *ericifolia* and *armillaris*, the bark, leaves, inflorescence and stamens abundantly show.

A petal. B stamen. C germen and style. D leaf, all magnified.

Several others are found in the same locality.

TAB. 33.

MELALUCA nodosa.

Knolly-Johnston Melaleuca.

Shrub 10 feet high, with many small flowers.

Leaves 3-4 inch long, 1/2 inch wide, pointed.

Flowers clustered about the top of the branches.

Calyx 5-lobed, half superior. Petals 5. Filaments numerous.

very long, united into 5 parcels. Style 1. Capsule of 3 cells.

Leaves scattered, linear, straight, tipped with spinous points. Flowers clustered about the top of the branches.

Melaleuca nodosa. Sm. Trans. of Linn. Soc. v. 3. 276.

Don. Cat. 144.

Metrosideros nodosa. Germ. Sem. v. 1. 172. A. 34. A. 6.

Cavan. Ac. v. 4. 19. A. 334.

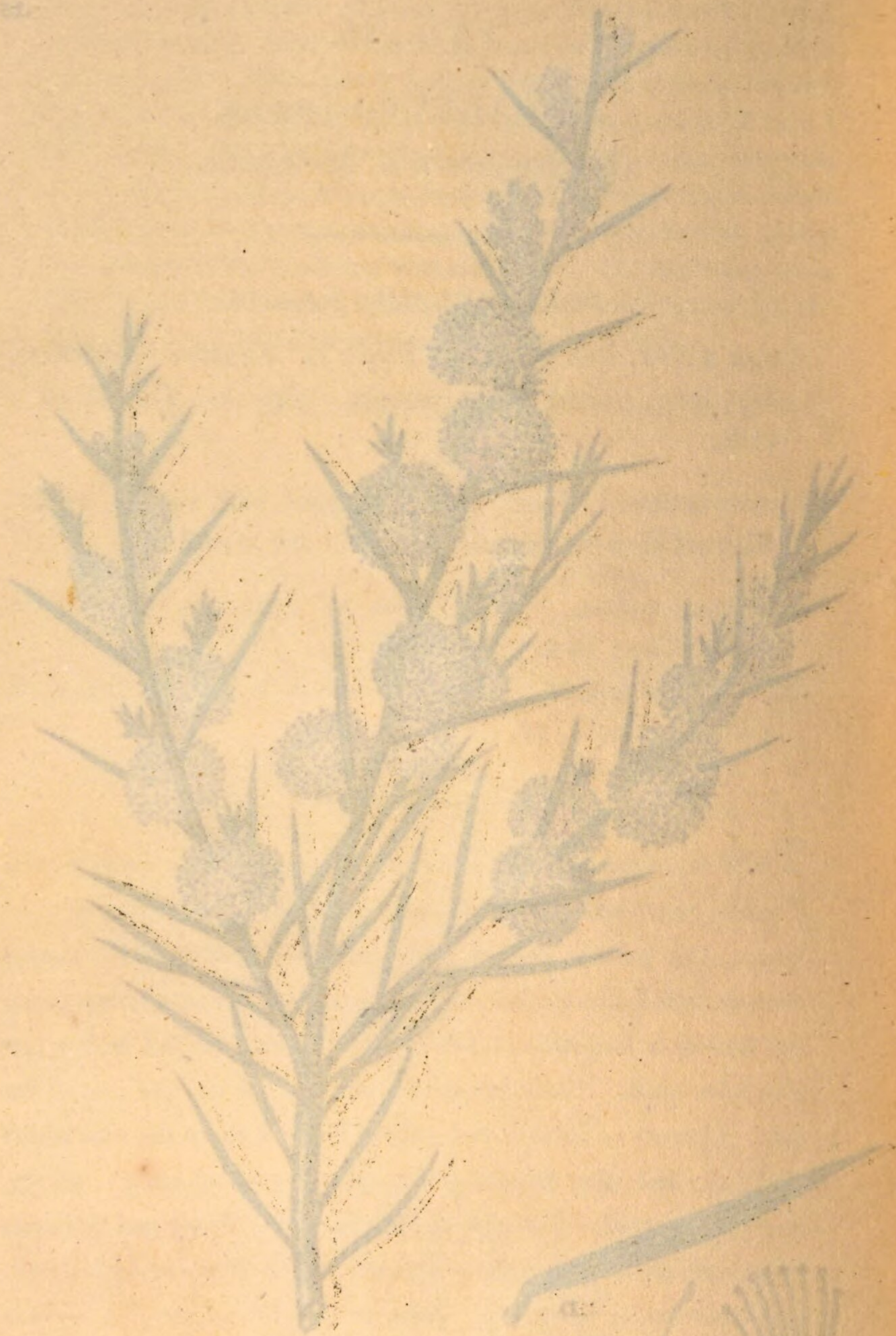
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A petal. B stamen. C germen and style. D leaf, all magnified.



Melaleuca nodosa

June 2. 1845. Published by J. Sowerby, London.



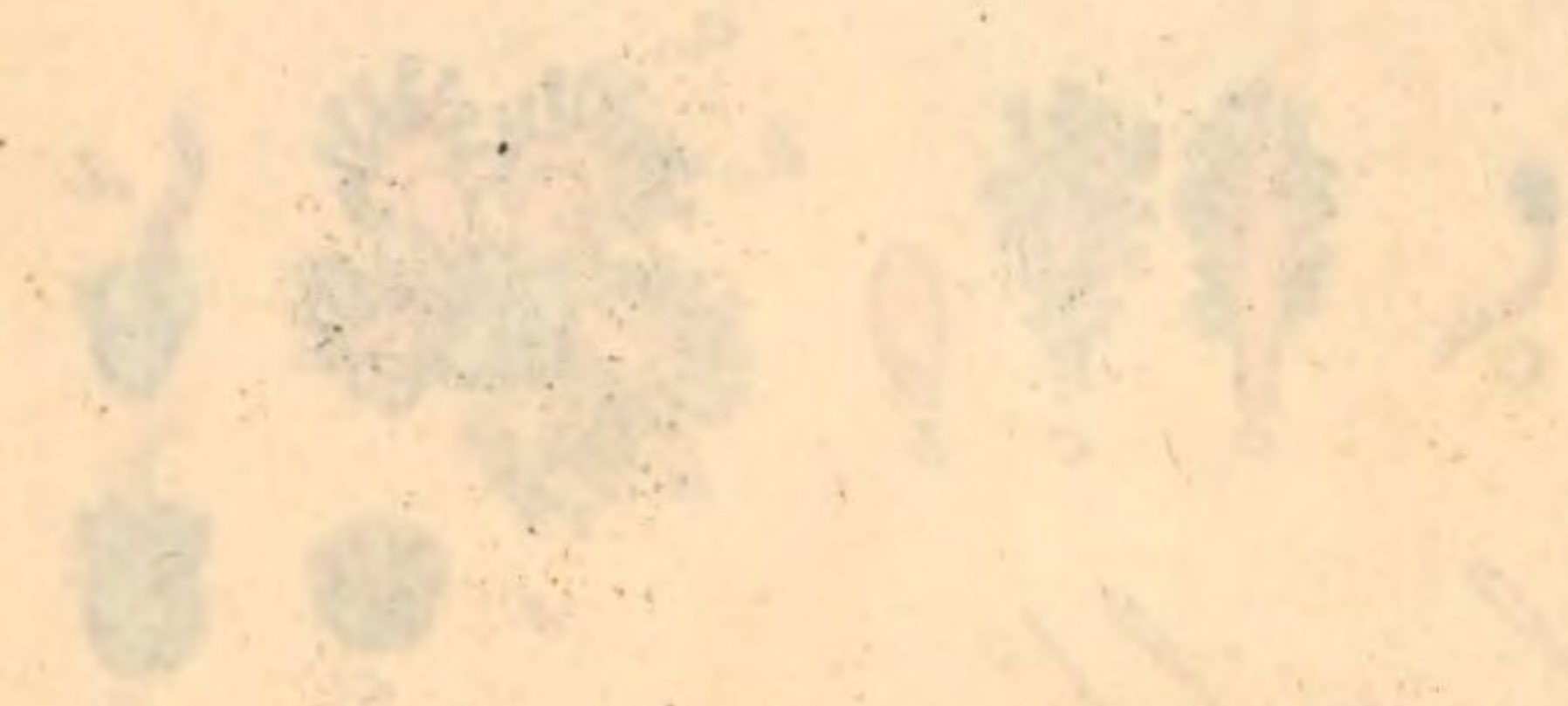
Euphorbia corollata L.

— the common spurge of the garden



Melaleuca thymifolia

July 1. 1805. Published by Jas. Sowerby, London.



Albizia leucacantha
var. *leucacantha*

TAB. 36.

MELALEUCA thymifolia.

Thyme-leaved Melaleuca.

POLYADELPHIA Polyandria.

Calyx 5-cleft, half superior. *Petals* 5. *Filaments* numerous, very long, united into 5 parcels. *Style* 1. *Capsule* of 3 cells.

Leaves opposite, elliptic-lanceolate, nerveless. Flowering branches lateral, very short, few flowered. Filaments branched more than half way down.

Melaleuca thymifolia. *Sm. Trans. of Linn. Soc. v. 3. 278.*
Donn. Cant. 144.

M. coronata. *Andr. Repos. t. 278.*

M. gnidiæfolia. *Venten. Jard. de la Malmaison, t. 4.*

Metrosideros calycina. *Cavan. Ic. v. 4. 20. t. 336. f. 2.*

I FIND it necessary to claim my own original name for this plant, which has been twice changed, surely not for the better, without any reference to the Linnæan Transactions where it was first published in 1797. Monsieur Ventenat however is quite clear of this impropriety, he having merely retained a chance denomination by which, as I learn from himself, the plant was sent him from the English nurseries.

It is a native of New South Wales, and was raised from seed by Mr. Fairbairn at Chelsea many years ago. Our figure was drawn in August 1794 at Mr. Robinson's, Stockwell.

The stem is shrubby, about 2 feet high, with numerous opposite round smooth leafy branches, whose cuticle is scarcely striped. Leaves opposite, each pair crossing the next, sessile, from $\frac{1}{4}$ to $\frac{1}{2}$ an inch long, spreading, of a narrow elliptical form, entire, pointless, without any prominent rib or veins, smooth, copiously dotted

with resinous dots, the seat of a very aromatic essential oil. Flowers but few together, lateral, sessile, on short lateral branches. Calyx turbinate, smooth. Petals purple. Filaments of the same colour, opposite to them, and twice as long, feathered half-way down or more, their branches curved inwards. Stamens yellow. Style purple, with a simple whitish stigma. Capsule globular, crowned with the hardened teeth of the calyx. Seeds small and numerous.

It is rather a tender green-house plant, seldom kept long by any body, but easily renewed from seed. The soil should be like that in which the heath kind are cultivated.

M. Ventenat's figure is taken from a very imperfect specimen; and we trust the addition of the fruit, and of an English description, with the correction of the name, will excuse our giving what is already well figured by Mr. Andrews, which we mean generally to avoid.

a, a calyx. *b, b* petals. *c, c, c* C stamens. *d* style. *e, e* fruit.



Virgilia helioides

July 1. 1805. Published by J. Sowerby, London.

TAB. 37.

VIRGILIA helioides.

*Sun-flower Virgilia.*SYNGENESIA *Polygamia-frustranea.*

Calyx of a double row of leaves. *Corolla* radiant: *marginal florets* 3-cleft. *Seed-crown* of several chaffy awned leaves. *Receptacle* convex, chaffy.

Virgilia helioides. L'heritier *Monogr. t. 1, 2.*

Galardia bicolor. Lamarck. *Encycl. v. 2. 590.*

OUR gardens were enriched with this handsome plant about the year 1787 by M. Thouin, who sent the seeds from Paris. It was reported to be a native of Louisiana, and was considered as a great acquisition to the French gardens; but being an annual, and ripening seed with difficulty in Europe, it is now we believe entirely lost. Mr. Sowerby drew it at Messieurs Lee and Kennedy's, where it was to be seen but one season. Its beauty is alluded to in Mr. Andrews's work, *p. 357.*

The French botanists have differed about its name. We prefer that given by the celebrated L'heritier, in a monograph, or express dissertation, on this plant, of which 12 copies only were printed, in which he has commemorated the great Latin poet, whose Georgics certainly entitle him to such a botanical memorial.

Root annual, branched. Stem upright, 2 or 3 feet high, much branched, leafy, round, streaked with dark and light green, stained with purple, and sprinkled with soft white hairs. Leaves alternate, sessile, oblong, sinuated or toothed, rather fleshy, roughish and downy, light green, with a single mid-rib. Flowers terminal, solitary, on long stalks, fragrant, beautifully variegated with crimson and yellow. *Calyx* of 2 rows, we scarcely find more, of lanceolate, pointed, rough leaves. Radius of many broad 3-cleft, spreading florets; yellow and veiny at the extremity; crimson and striped at the base;

each with the rudiments of a germen, but barren. Disk of numerous, tubular, 5-cleft, perfect and fertile florets, of which the more central are yellow or greenish, the outermost purplish. Stamens 5, with united antheras. Germen obovate. Stigmas 2, acute, hairy. Seed crowned with from 5 to 8 flat, acute, chaffy scales, joined at their base; being, as L'heritier observes, a proper calyx. Receptacle hemispherical, clothed with chaffy scales. The genus is nearly allied to *Rudbeckia*.

a, *a* show a flower of the radius, with its abortive germen and seed-crown. *b* a tubular floret of the disk, with its antheras and stigma.

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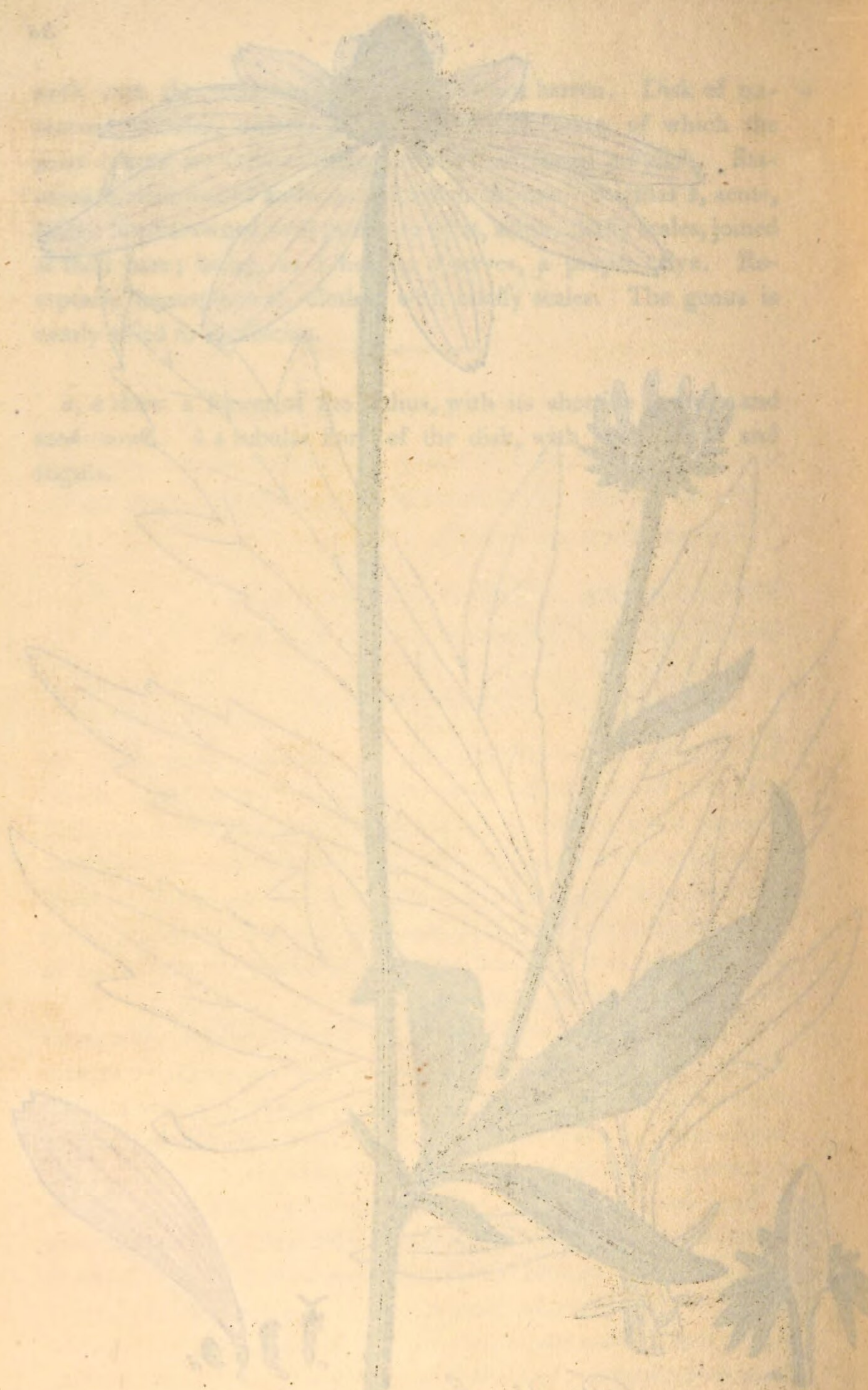
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Root annual, branched. Stem upright, 2 or 3 feet high, much branched, leafy, round, streaked with dark and light green, stained with purple, and sprinkled with soft white hairs. Leaves alternate, sessile, oblong, serrated or toothed, rather fleshy, roughish and downy, light green, with a single mid-rib. Flowers terminal, solitary, on long stalks, fragrant, beautifully variegated with crimson and yellow. Calyx of 2 rows, we scarcely find more, of lanceolate, pointed, rough leaves. Radius of many broad 3-cleft, spreading flowers; yellow and veiny at the extremity; germen and styled at the base.



Rudbeckia pinnata

July 1. 1805. Published by Jas. Sowerby, London.



Chenopodium

TAB. 38.

RUDBECKIA pinnata.

*Fragrant Pinnated Rudbeckia.**SYNGENESIA Polygamia-frustranea.*

Calyx of a double row of leaves. *Corolla* radiant: *marginal florets* toothed. *Seed* crowned with 4 teeth. *Receptacle* conical, scaly.

Leaves rough all over: the lower ones compound; middle ones three- or five-cleft; uppermost undivided. Stem rough.

Rudbeckia pinnata. *Ventenat Jard. de Cels. t. 71.*

RECEIVED by Lady Hume from the botanical garden at Madrid, by the name of *Rudbeckia odorata*; but we do not find it mentioned in the works of Cavanilles, nor of any other author, by that name. It is undoubtedly the *pinnata* of Ventenat, though not, as that ingenious writer supposed, the *digitata* of Miller and Aiton. It flowers with us late in the autumn in the open border, being a hardy perennial. M. Ventenat informs us it was discovered by Michaux in the country of the Illinois.

Root fibrous, perennial. Stem erect, branched, several feet high, furrowed, rough with short ascending bristles, as are the flower-stalks, calyx, and leaves in every part; even the yellow florets of the radius are rough and glandular. The lower leaves are doubly pinnatifid, and somewhat lyrate, their lobes jagged and decurrent; those higher up have 3 or 5 simple lobes; the uppermost are simple and undivided. Flowers upright, on long, stiff, simple stalks. Calyx of numerous spreading leaves. Radius of 8 or 10 large spreading florets. Disk conical, dark purple, almost black.

a receptacle and calyx. *b* floret of the radius, with its barren germen. *c* floret of the disk. *d, d* scales of the receptacle.

TAB. 38.

RUDBECKIA pinnata.
Fragrant Pinnated Rudbeckia.

SYNGENESIA Polygamia-frustranea.

Calyx of a double row of leaves. Corolla radiant: marginal
flowers toothed. Seed crowned with a tooth. Receptacle
conical, scaly.

Leaves rough all over: the lower ones compound; middle
ones three- or five-cleft; uppermost undivided. Stem
rough.

Rudbeckia pinnata. Ventenat. Jard. de Cels. t. 71.

RECEIVED by Lady Hume from the botanical garden at Madrid,
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Root fibrous, perennial. Stem erect, branched, several feet
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flower-stalks, calyx, and leaves in every part; even the yellow
fores of the radius are rough and glandular. The lower leaves are
doubly pinnatifid, and somewhat lyrate, their lobes jagged and
decurrent; those higher up have 3 or 5 simple lobes; the upper-
most are simple and undivided. Flowers upright, on long, stiff,
simple stalks. Calyx of numerous spreading leaves. Radius of 8
or 10 large spreading flowers. Disk conical, dark purple, almost
black.

a receptacle and calyx. 5. flower of the radius, with its barren
germen. 6. flower of the disk. 4. 5 scales of the receptacle.



Epacris grandiflora.

July 1 1805. Published by Jas. Sowerby, London.



Epacris grandiflora
Lam. Prodr. 103. t. 1. f. 1.

TAB. 39.

EPACRIS grandiflora.

*Crimson Mountain-blossom.**PENTANDRIA Monogynia.*

Calyx imbricated. *Corolla* tubular. *Stamens* inserted into its orifice. *Scales* 5 at the base of the germen. *Capsule* superior, of 5 cells, and 5 valves, with partitions from their middle. *Seeds* numerous, chaffy.

Leaves heart-shaped, pungent, recurved, on footstalks.
Flowers pendulous.

Epacris grandiflora. Willden. *Sp. Pl.* v. 1. 834.

E. longiflora. Cavan. *Ic.* v. 4. 25, t. 344.

THIS beautiful and various genus seems, along with *Styphelia*, *Bot. of N. Holl.* t. 14, to occupy the same place in the scale of Nature in New Holland, that the Heaths do at the Cape of Good Hope. Its name, given by Forster, expresses that it inhabits mountains. No species has yet been raised in England; but surely the annexed plate will excite cultivators to endeavour to obtain some of the seeds,

E. grandiflora grows in a dry sandy soil, flowering in October, and seems to be not uncommon about Port Jackson, as we have received various specimens of it and several drawings. Cavanilles had it from the same country, but his figure is not happily executed. The stem is shrubby, 4 or 5 feet high, much branched. Branches round, downy, leafy. Leaves evergreen, hard, rigid, numerous, alternate, on short downy stalks, recurved, heart-shaped, with a spinous point, entire, thick-edged, obscurely ribbed, nearly smooth. Flowers axillary, solitary, pendulous, on short scaly stalks, leaning all one way. *Calyx* imbricated; its leaves ovate, sharp-pointed, fringed; the 5 innermost longest,

narrowest and equal. Corolla an inch long, tubular, smooth, with a regular, spreading, 5-cleft, acute, white border, the tube of an elegant crimson. Stamens short, in the mouth of the tube. Anthers brown, 2-lobed, bursting longitudinally. Pollen yellow. Germen superior, with 5 blunt scales at its base. Style thread-shaped, extended beyond the stamens, with a capitate stigma. Capsule of 5 hard, rigid, obtuse valves, with partitions from their centre. Seeds minute, angular.

Sometimes the flowers are 4-cleft, with only 4 stamens.

a leaf with its stalk. *b* corolla opened to show the stamens. *c* calyx and pistil. *D* magnified germen and its scales. *e* capsule.

superior, of 5 cells, and 5 valves, with partitions from their middle. Seeds numerous, chaffy.

Leaves heart-shaped, pungent, recurved, on footstalks. Flowers pendulous.

Epacris grandiflora. Willden. sp. Pl. v. 1. 834.
E. longiflora. Cavan. Ic. v. 4. 25. t. 244.

THIS beautiful and various genus seems, along with *Styphelia*, Bot. of N. Holl. t. 14, to occupy the same place in the scale of Nature in New Holland, that the *Hebe*s do at the Cape of Good Hope. Its name, given by Forster, expresses that it inhabits mountains. No species has yet been raised in England; but surely the annexed plate will excite cultivators to endeavour to obtain some of the seeds.

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Epacris obtusifolia

July 1. 1806. Published by J. E. Sewerby, London.

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Epiphanis ...

TAB. 40.

EPACRIS obtusifolia.

*Blunt-leaved Mountain-blossom.**PENTANDRIA Monogynia.*

Calyx imbricated. *Corolla* tubular. *Stamens* inserted into its orifice. *Scales* 5 at the base of the germen. *Capsule* superior, of 5 cells, and 5 valves, with partitions from their middle. *Seeds* numerous, chaffy.

Leaves elliptic-lanceolate, very obtuse, and pointless, on short footstalks. Flowers drooping toward one side.

SPECIMENS and coloured drawings of this hitherto nondescript species have been sent with the former from Port Jackson. It is said to grow likewise in dry sandy soil, and to blossom in October.

The shrubby branched stem rises to the height of about 3 feet. The younger parts of the branches only are slightly downy. Leaves alternate, on very short smooth stalks, spreading, elliptic-lanceolate, smooth, rigid; flattish above; convex and ribbed beneath; their points remarkably thick and blunt, without any spinous tips. Flowers axillary, solitary, on very short scaly stalks, rather drooping, and all inclining one way. *Calyx*-leaves with bearded tips. *Corolla* yellowish white, or cream-coloured, with bluntish segments, the tube shorter in proportion than the last. *Antheras* and *stigma* reddish.

We should, from the colour of these flowers, guess them to be fragrant in an evening. One species, the *Epacris pungens* of Cavanilles, *t.* 346, but not of *Curt. Mag. t.* 844, is said to have sweet-smelling flowers.

A a magnified leaf. *b* corolla and stamens of the natural size. C calyx and pistil magnified.

TAB. 40.

EPACRIS obtusifolia.

Blunt-leaved Mountain-blossom.

PENTANDRIA Monogynia.

Calyx imbricated. Corolla tubular. Stamens inserted into its orifice. Scales 5 at the base of the germen. Capsule superior, of 5 cells, and 5 valves, with partitions from their middle. Seeds numerous, chaffy.

Leaves elliptic-lanceolate, very obtuse, and pointless, on short footstalks. Flowers drooping toward one side.

SPECIMENS and coloured drawings of this hitherto undescribed species have been sent with the former from Port Jackson. It is said to grow likewise in dry sandy soil, and to blossom in October. The shrubby branched stem rises to the height of about 3 feet. The younger parts of the branches only are slightly downy. Leaves alternate, on very short smooth stalks, spreading, elliptic-lanceolate, smooth, rigid; flatish above; convex and ribbed beneath; their points remarkably thick and blunt, without any spinous tips. Flowers axillary, solitary, on very short scaly stalks, rather drooping, and all inclining one way. Calyx-leaves with bearded tips. Corolla yellowish white, or cream-coloured, with bluish segments, the tube shorter in proportion than the last. Anthers and stigma reddish.

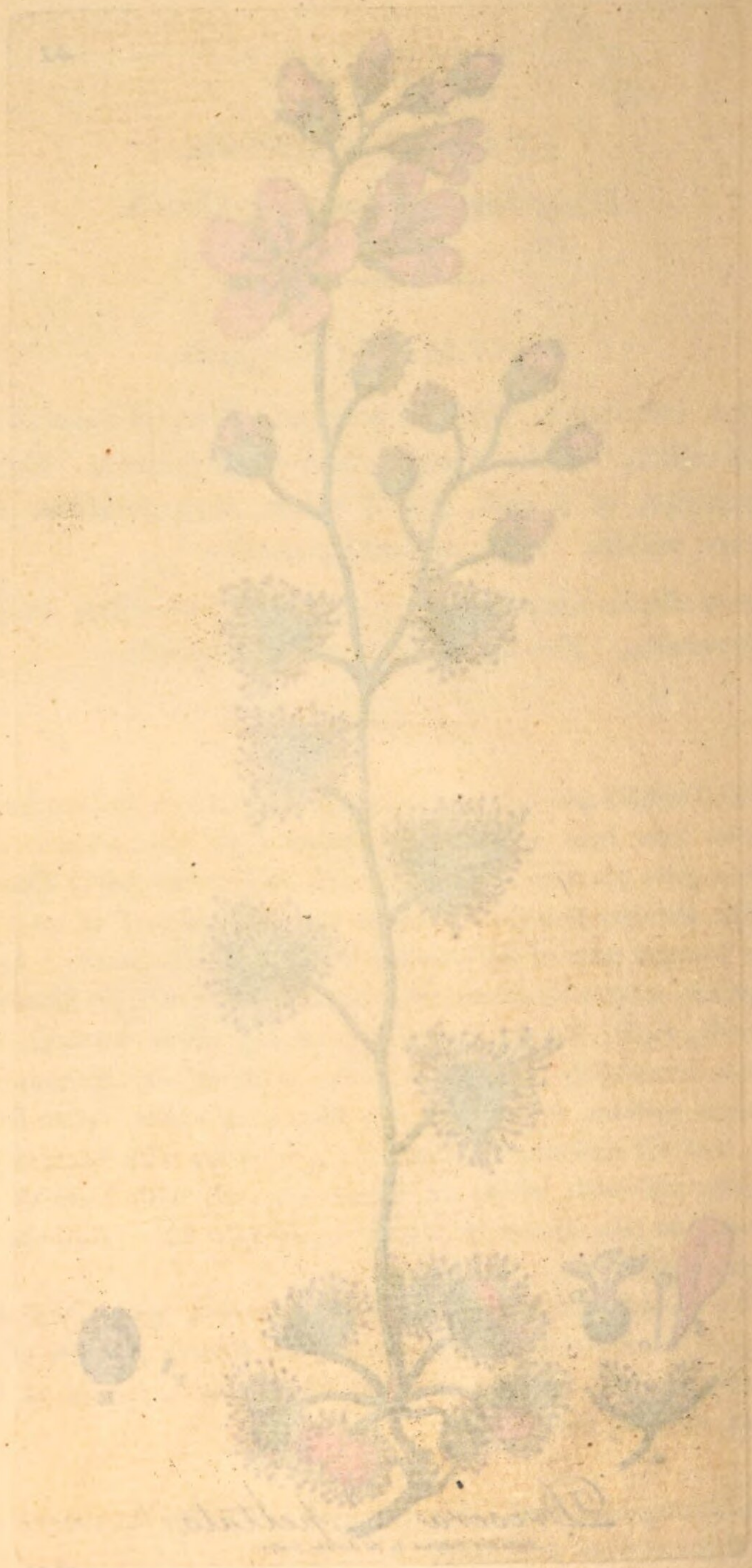
We should, from the colour of these flowers, guess them to be fragrant in an evening. One species, the *Epacris purpurea* of Cavendish, A. 346, but not of Curt. Mag. A. 844, is said to have sweet-smelling flowers.

A magnified leaf. 5 corolla and stamens of the natural size. Calyx and pistil magnified.



Drosera peltata

Aug. 1. 1805. Published by Jas. Sowerby, London.



TAB. 41.

DROSERA peltata.

*Peltate Sun-dew.**PENTANDRIA Hexagynia.*

Calyx 5-cleft. *Petals* 5. *Capsule* superior, of 1 cell, and 3 valves, with many *Seeds*.

Stem somewhat branched, leafy. Stem-leaves peltate, triangular, on long stalks. Styles three.

Drosera peltata. Willden. *Sp. Pl.* v. 1. 1546.

ALTHOUGH our general aim in the present work is to introduce to the curious cultivator such plants as are in every respect most worthy of his care, it will surely not be unacceptable if we sometimes exhibit new or very extraordinary species, which can be known by no other means, and of the cultivation of which there is scarcely any hope. The plant in the annexed plate stands in the predicament last mentioned. No *Drosera* has hitherto been preserved or raised in any garden. Yet as its near relation the *Dionæa* can be brought from America, so as to bloom with us, for one season at least, we need not altogether despair. Twenty years ago there was little hope of seeing a flourishing *Epidendrum* in the gardens of Europe, yet many of that tribe are now familiar to us.

This species, so remarkable for the shield-like leaves on its stem, grows in marshy ground at Port Jackson, flowering in September. It was originally discovered in that part of the world by Sir Joseph Banks and Dr. Solander. Our specimens and drawings were sent by Dr. White.

The root seems to be perennial, bearing sometimes many stems, which are each about a span high, erect, smooth, leafy, generally divided into two long simple clusters of red or white flowers. Radical leaves numerous, kidney-shaped; the rest peltate, alternate, triangular; all on longish stalks, clothed on the upper side, as well

as fringed, with numerous, coloured, glandular, viscid hairs, which probably serve to catch flies, as in our British species of Sun-dew. The calyx is also fringed and reddish. Petals obovate. Stamens 5. Styles only 3, with fringed stigmas. Seeds numerous, minute, angular, rugged.

a calyx and pistil. *b* petal. *c* stamen. *D* germen and styles magnified. *E, F* capsule and seed.

PENTANDRIA Monogamia.
Calyx 5-lobed. Petals 5. Capsule superior, of 1 cell, and 3
valves, with many seeds.
Stem somewhat branched, leafy. Stem-leaves petiole, trian-
gular, on long stalks. Styles three.
Dioscori petalis. Willd. Sp. Pl. v. 1. 1246.

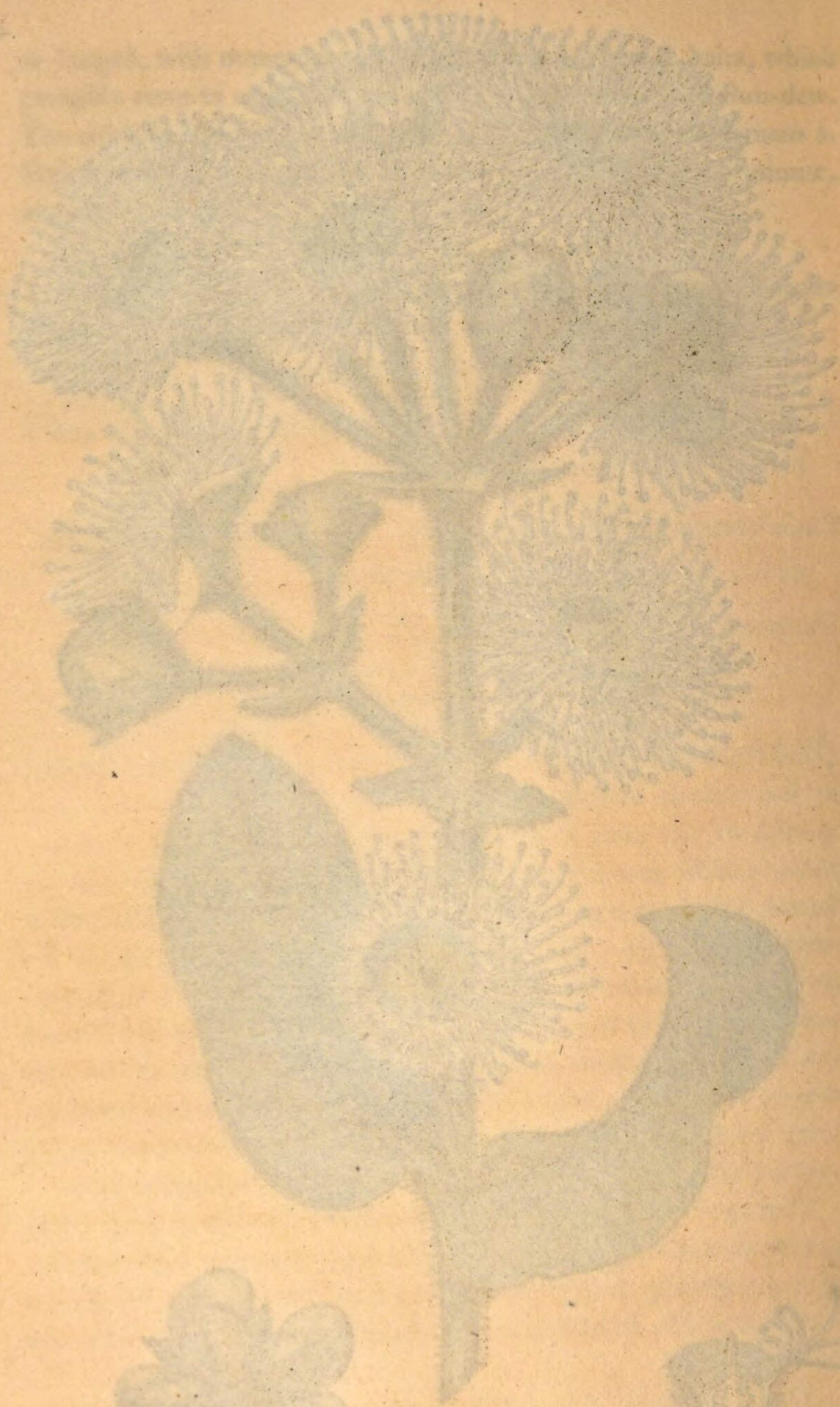
ALTHOUGH our general aim in the present work is to introduce to the curious cultivator such plants as are in every respect most worthy of his care, it will surely not be unacceptable if we sometimes exhibit new or very extraordinary species, which can be known by no other means, and of the cultivation of which there is scarcely any hope. The plant in the annexed plate stands in the predicament last mentioned. No *Dioscora* has hitherto been pre- served or raised in any garden. Yet as its near relation the *Dioscora* can be brought from America, so as to bloom with us, for one season at least, we need not altogether despair. Twenty years ago there was little hope of seeing a flourishing *Epiphyllum* in the gardens of Europe, yet many of that tribe are now familiar to us. This species, so remarkable for the shield-like leaves on its stem, grows in marshy ground at Port Jackson, flowering in September. It was originally discovered in that part of the world by Sir Joseph Banks and Dr. Solander. Our specimens and drawings were sent by Dr. White.

The root seems to be perennial, bearing sometimes many stems, which are each about a span high, erect, smooth, leafy, generally divided into two long simple clusters of red or white flowers. The leaf leaves numerous, kidney-shaped; the root petiole, alternate, triangular; all on longish stalks, clothed on the upper side, as well



Metrosideros hispidula

Aug 21. 1808. Published by Jas. Sowerby, London.



Collegium medicinale
in officina...

TAB. 42.

METROSIDEROS hispida.

*Rough Metrosideros.**ICOSANDRIA Monogynia.*

Calyx 5-cleft, half superior. *Petals* 5. *Stamens* much longer than the corolla. *Stigma* simple. *Capsule* of 3 cells.

Leaves opposite; heart-shaped, and clasping the stem, at their base. Young branches, flower-stalks and calyx bristly.

Metrosideros hispida. *Trans. of Linn. Soc. v. 3. 267.* *Donn. Cant. 92.* *Mill. Dict. ed. Mart.*

M. anomala. *Venten. Jard. de la Malmaison, t. 5.*

Metrosidera hirsuta. *Andr. Bot. t. 281.*

Angophora cordifolia. *Cavan. Ic. v. 4. 21. t. 338.*

MUCH confusion and misconception has deformed the history of this fine plant, which we feel it incumbent on us to clear away, as well as to give a more characteristic figure than has yet appeared. M. Ventenat's plate in his beautiful work was taken from so imperfect and starved a specimen, that he was induced to suppose it a different species. Mr. Andrews's, though the best, gives a wrong idea of the stigma as well as the inflorescence, which is properly umbellate, and this figure is, in other respects, less happy than is usual with this ingenious artist. As to the name, which alludes to the iron-like hardness of the wood, we can assure him that *Metrosidera* was, from the first, a vulgar corruption. The trivial name *hirsuta* he seems to have accidentally written for *hispida*, in taking the specific character from the *Linn. Trans.*, a work to which he ought to have referred. Our lamented friend Cavanilles has made a new genus, *Angophora*, of this and *Metrosideros costata*, erroneously giving to the latter alternate leaves. That supposed genus is founded on the seeds being solitary, when ripe, in each cell. But

this only fills up the measure of error concerning the plant before us. Our figure shows sufficiently that the seeds, in the germen, are numerous, though indeed most of them prove abortive.

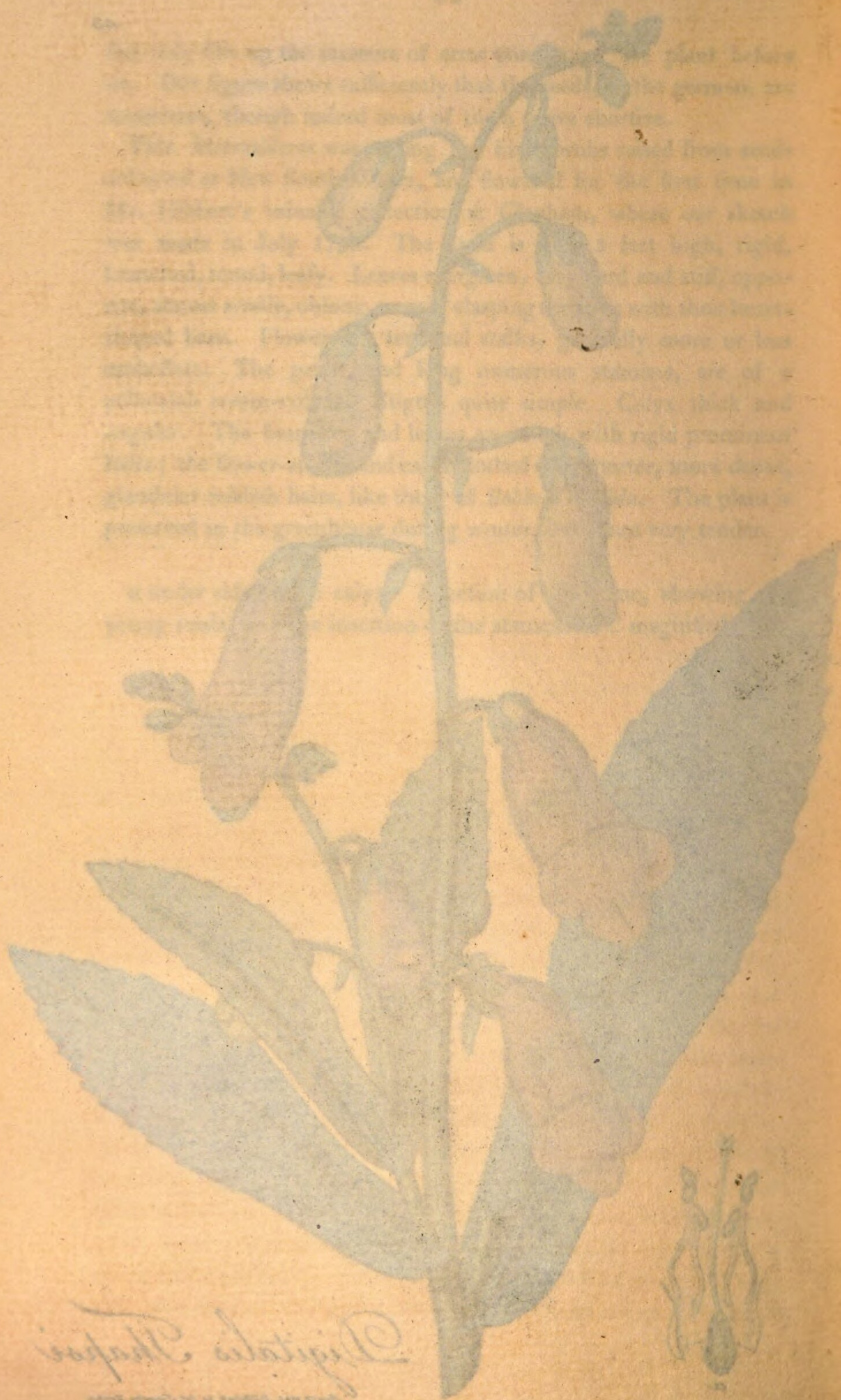
This *Metrosideros* was among the first shrubs raised from seeds collected at New South Wales, and flowered for the first time in Mr. Hibbert's valuable collection at Clapham, where our sketch was made in July 1798. The stem is 4 or 5 feet high, rigid, branched, round, leafy. Leaves evergreen, very hard and stiff, opposite, almost sessile, oblong, waved, clasping the stem with their heart-shaped base. Flowers on terminal stalks, generally more or less umbellate. The petals, and long numerous stamens, are of a yellowish cream-colour. Stigma quite simple. Calyx thick and angular. The branches and leaves are rough with rigid prominent hairs; the flower-stalks, and calyx clothed with shorter, more dense, glandular reddish hairs, like those of *Robinia hispida*. The plant is preserved in the greenhouse during winter, but is not very tender.

a under side of the calyx. *b* section of the same, showing the young seeds, and the insertion of the stamens. *C* magnified hairs.



Digitalis Thapsi

Aug. 11 1805. Published by J. Sowerby, London.



Digitalis purpurea

TAB. 43.

DIGITALIS Thapsi.

*Mullein Fox-glove.**DIDYNAMIA Angiospermia.*

Calyx in 5 segments. *Corolla* bell-shaped, 4- or 5-cleft, inflated. *Capsule* ovate, of 2 cells, with many seeds.

Segments of the calyx oblong. *Corolla* obtuse, its upper lip undivided. Leaves downy, decurrent.

Digitalis Thapsi. *Linn. Sp. Pl.* 867. *Mill. Dict. n.* 2. *Ait. H. Kew. v.* 2. 345. *Allion. Pedem. v.* 1. 70.

D. angusto verbasci folio montana. *Bocc. Mus. v.* 1. 108. *t.* 85. *f.* ult.

D. verbascifolia purpurea minor perennis hispanica. *Barrel. Ic. t.* 1183.

BOCCONE appears to be the only writer who has given an account of this species from wild specimens observed by himself. Barrelier has copied his figure, the only one extant. The plant is a native of the mountains of Tuscany and Savoy, as well as of Spain. Miller alone seems to have cultivated it in England. The history of its recent introduction among us will be best given in the words of Mr. Lambert, to whom we are obliged for a fresh specimen.

“ *Digitalis Thapsi* has been long lost to our gardens, I believe
 “ ever since Miller’s time. Mr. Ferdinand Baver, when collecting
 “ species for his intended Monography of the genus, sought it in
 “ vain in every curious garden about the Metropolis. This made
 “ me very anxious to obtain the plant from Spain, as it was almost
 “ the only known species wanting to our collections. On writing
 “ to my much-lamented friend Cavanilles, I received from him one
 “ small dried specimen, on which were luckily two ripe capsules.
 “ From these I collected many seeds, of which only two vegetated.

“ By dividing the roots I obtained several plants, which flowered
 “ the second year, May 1805, and are now flourishing in my
 “ garden at Boyton.”

The root seems to be perennial, consisting of many long fibres. Stems several, 1 or 2 feet high, branched, leafy, round. Leaves all sessile and decurrent, elliptic-oblong, bluntish, rounded at the base, serrated, veiny, with several lateral ribs, downy on both sides, of a palish green; they are alternate, except those at the bottoms of the branches. Flowers in long terminal simple clusters, smaller, paler, and less specious, than those of the common *D. purpurea*, their internal specks being minute and purple only, not beautifully ocellated. The form of the corolla agrees with that species, but the calyx-lobes are somewhat narrower.

Linnæus supposed this might be a mule produced from the pollen of *Verbascum Thapsus* falling on *D. purpurea*; but we see little to countenance the supposition.

a shows the stamens and pistil separated from the rest of the flower.



Protea rosacea

Augt 1. 1805. Published by Jas. Sowerby, London.

During the time I obtained several plants, which flowered
in the second year, May 1864, and are now flourishing in my
"Garden at Haver."

The next season to be perused, consisting of a long fibre.
Stems several, 1 or 2 feet high, branched. Leaves
all dark red decurrent, and oblong, pointed at the
base, serrated, very, with small lateral lobes on both
sides, of a pale green; they are more numerous at the
extremity of the branches. Flowers in simple clusters,
smaller, paler, and less specious than those of the common
D. purpurea, their internal parts are white and purple only,
not beautifully variegated. The leaves of the plant agree with that
species, but the calyx-lobes are smaller.

Linnæus supposed this might be produced from the pollen
of *Peridroma Thymus* falling on *D. purpurea*, but we see little to
confirm the supposition.

It shows the stamens and pistil separated from the rest of the
flower.



Protea rosea

Printed and Published by the University Press, Cambridge.

TAB. 44.

PROTEA rosacea.

*Rosaceous Protea.**TETRANDRIA Monogynia.*

Common Calyx of many leaves, imbricated, many-flowered.

Petals 4, bearing the stamens. *Nut* superior, closed, with 1 seed.

Leaves simple, linear, pungent. Flowers solitary, drooping.

Calyx coloured, minutely fringed.

Protea rosacea. Linn. Mant. 189. Syst. Veg. ed. 13. 118.

P. nana. Thunb. Diss. n. 29. Prodr. 26. Linn. Syst.

Veg. ed. 14. 139. Ait. Hort. Kew. v. 3. 484.

P. acuifolia. Salisb. in Hooker's Paradisus, t. 2.

Leucadendron nanum. Berg. Cap. 22.

Conophoros capensis pini folio. Pet. Gazoph. dec. 3. t. 25.

f. 7.

A NATIVE of dry elevated places by the rivers of the country about the Cape of Good Hope, particularly near Rood Zands cascade, as we learn from the rich herbarium of G. Hibbert, Esq., to whom we are obliged for a specimen, which exactly accords with that of Bergius in the Linnæan collection. The annexed figure was drawn in May 1805, at Messieurs Lee and Kennedy's.

The stem is upright, 2 or 3 feet high, much branched, the branches tawny, smooth, round, leafy, loosely spreading. Leaves numerous, scattered, imbricated, sessile, simple, scarcely an inch long, linear, entire, smooth, each tipped with a sharp spine. Flowers terminal, solitary, drooping, of an elegant rosaceous form and colour, the imbricated spreading leaves of the calyx being of a shining crimson, their edges finely fringed. The numerous florets form a dense cone, shorter than the calyx. They are reddish,

fringed with golden hairs. The styles of the outermost first release themselves from the confinement of the closed tips of the corolla, and are smooth, yellow and rigid, each bearing an oblong sulcate style.

The excellent Thunberg probably called this plant *nana* out of respect to Bergius's original name; but that being found, on further observation, peculiarly inapplicable, surely the Linnæan denomination *rosacea*, which is nearly of the same date, ought to be retained. Thunberg himself says "the plant is known at first sight by the resemblance of its flowers to a rose." We have therefore no occasion to adopt, or to criticise, *acuiifolia*. Mr. Hooker, or rather his colleague Mr. Salisbury, has made an unexpected attack upon us in their preface*; and we perceive something from the same quarter, given to the world in a more learned form† by an intimate and highly respected friend of the gentleman last named. We believe the science will be benefited by our friend's talents, in whatever way they are directed. The more moderate he is in his triumphs over us poor Linnæans, the more resplendent and unsullied will be his own fame.

* "In all similar publications which have hitherto appeared, not even excepting the most respectable, a considerable portion of each page has been filled with *useless repetitions* of the classes, orders and generic characters of the sexual system."—*Hooker's preface*.

† "Observationes de affinitatibus addidit Salisburius, qui *ferè solus* apud nos easdem curat et studet."—*Rudge Pl. Guian. præf. p. 6*.



Campanula gracilis

Augt. 1805. Published by Jas. Sowerby, London.

TAB. 45.

CAMPANULA gracilis.

*Slender Roughish Bell-flower.**PENTANDRIA Monogynia.*

Corolla bell-shaped, closed at the bottom by valves bearing the stamens. *Stigma* 3-cleft. *Capsule* inferior, of 3 or 5 cells.

Leaves rough, linear-lanceolate; the lower ones bluntly toothed. Stem round, much branched. Flowers solitary, terminal; their tube shorter than the calyx-teeth.

Campanula gracilis. *Forst. Prodr.* 15. *Willden. Sp. Pl.* v. 1. 891.

DRAWN from a plant which flowered in Lady Hume's collection last summer, and which was raised from seeds collected in New South Wales. We have compared our specimens, both wild and cultivated, with the original one of Forster in Sir Joseph Banks's possession, and find no difference, except that in his the calyx is not hairy.

The stem is a foot or more in height, much branched, leafy, round, two-edged. Leaves linear-lanceolate, obtuse; the lower ones opposite, bluntly toothed; the rest scattered and entire. Flowers erect, solitary, on long terminal naked stalks. Calyx globose, generally rough with deflexed hairs; its teeth awl-shaped, longer than its body, or than the tube of the flower. Corolla slender and funnel-shaped, of a rich blue within, paler without; its segments acute, fringed, sometimes only 4. Capsule of 3 cells, opening by 3 valves at the summit. Every part of the herbage is rough with very short rigid pubescence.

We have Monsieur Ventenat's *C. vincæflora*, *Jard. de la Malmaison*, t. 12, which seems to us a distinct species, being smooth, except some scattered longish bristles on the leaves, and having a wider flower, with much shorter calyx-teeth, and a less globular capsule than in our plant.

a calyx with stamens and style. *b* corolla. *c* ripe fruit cut across. *D* magnified seed.

TAB.
STRUTHIOA virgata
Downy-branch Struthiola.

TETRANDRA

Calyx none. Corolla 5-lobed, lobes white, with
8 glands at the mouth. Petals white, dry, with 1 gland.
Style lateral. Stigma 2-lobed.
Leaves lanceolate, striate. Branches red, downy.

Struthiola virgata. Linnaeus, Cat. 1. Thunberg, Prod. 78.

THIS is a native of the Cape of Good Hope. An specimen of
which we are obliged to Messrs Lee and Edwards, who have for
some time cultivated it in a greenhouse. It flowers in May, and
is fragrant.

Stem 2 or 3 feet high, upright, woody, the branches
obscurely quadrangular, clothed with short silky hairs.
Leaves opposite, imbricate in four rows, lanceolate, entire,
convex, more or less serrated, striate, with a glaucous hue.

Flowers axillary, the calyx is longer than
the leaves, with a pale coloured tube, silky exterior, and
buff-coloured with a red line, silky exterior, and
redder; limb spread, the lobes are white, with a
spreading gland. Style 4, short, and
tubular, the exterior is smooth. Style
than the stigma, slender, smooth.

Differences of opinion concerning the
are noticed. We have adopted what appears to be
analogy of other plants.

Struthiola virgata

Sept. 1. 1806. Published by Jas. Sowerby London.



The first specimen of *U. sinensis*, Gard. de la Mal-
 lard, is a distinct species, being smooth,
 leaves more or less lengthened, and having a
 small, but not very distinct, lobes, and a less globular
 fruit than the other.

The second specimen, and the third, are ripe fruit and
 leaves, and are very distinct.



U. sinensis

TAB. 46.

STRUTHIOLA *virgata*.*Downy-branched Struthiola.**TETRANDRIA Monogynia.*

Calyx none. *Corolla* tubular, thread-shaped, 4-cleft, with 8 glands at the mouth. *Berry* superior, dry, with 1 seed. *Style* lateral. *Stigma* smooth.

Leaves lanceolate, striated, ciliated. Branches and flowers downy.

Struthiola virgata. *Linn. Mant.* 41. *Thunb. Prod.* 76.

THIS is a native of the Cape of Good Hope, for specimens of which we are obliged to Messieurs Lee and Kennedy, who have for some time cultivated it in their greenhouse. It flowers in May, and is fragrant.

Stem 2 or 3 feet high, branched, upright, wand-like; the branches obscurely quadrangular, leafy, clothed with fine short silky hairs. Leaves opposite, imbricated in four rows, sessile, lanceolate, entire, concave, more or less fringed, striated and smooth at the back, with a glaucous hue. Flowers axillary, solitary, sessile, longer than the leaves, with a pair of fringed bractees at their base. Corolla buff-coloured with a red tinge, silky externally; its tube long and slender; limb spreading; orifice red, bristly and crowned with 8 spreading glands. Stamens 4, short, enclosed in the mouth of the tube. Germen superior, smooth. Style lateral, slender, shorter than the tube. Stigma obtuse, smooth.

Differences of opinion concerning the terms calyx and corolla are endless. We here adopt what appears to be sanctioned by the analogy of other plants.

A magnified flower opened longitudinally, with its bractees. B glands. C antheras. D style.

TAB. 46.

STRUThIOIA

Downy-branched Struthiola.

TETRANDRIA Monogynia.

Calyx none. Corolla tubular, thread-shaped, 4-lobed, with
8 glands at the mouth. Berry superior, dry, with 1 seed.
Style lateral. Stigma smooth.

Leaves lanceolate, serrated, ciliated. Branches and flowers
downy.

Struthiola virgata. Ann. Mus. 41. Thunb. Prod. 76.

THIS is a native of the Cape of Good Hope, for specimens of
which we are obliged to Messieurs Lee and Kennedy, who have for
some time cultivated it in their greenhouse. It flowers in May, and
is fragrant.

Stem 2 or 3 feet high, branched, upright, wand-like; the branches
obtusely quadrangular, leafy, clothed with fine short silky hairs.
Leaves opposite, imbricated in four rows, sessile, lanceolate, entire,
concave, more or less fringed, striated and smooth at the back,
with a glaucous hue. Flowers axillary, solitary, sessile, longer than
the leaves, with a pair of fringed bracts at their base. Corolla
buff-colored with a red tinge, silky externally; its tube long and
slender; limb spreading; orifice red, bristly and crowned with 8
spreading glands. Stamens 4, short, enclosed in the mouth of the
tube. Germen superior, smooth. Style lateral, slender, shorter
than the tube. Stigma obtuse, smooth.

Differences of opinion concerning the terms calyx and corolla
are endless. We here adopt what appears to be sanctioned by the
analogy of other plants.

A magnified flower opened longitudinally, with its bracts.
Glands. C anthers. D style.

TAB. 57
DAPHNE

Sweet-scented Cherry Laurel



Daphne odora

Sept. 1 1806. Published by Jas. Sowerby, London.



Asplenium adnigrum

Asplenium adnigrum

TAB. 47.

DAPHNE odora.

Sweet-scented Chinese Daphne.

OCTANDRIA Monogynia.

Calyx none. *Corolla* 4-cleft, naked at the mouth, permanent. *Stamens* in 2 rows, within the tube. *Berry* superior, with 1 seed. *Stigma* capitate, almost sessile.

Flowers sessile, in terminal clusters. Leaves ovate, alternate, smooth.

Daphne odora. *Thunb. Jap.* 159. *Ait. H. Kew. v. 2.* 26.
Banks. Ic. Kæmpf. t. 16.

IF this species of *Daphne* were constant in producing flowers, few shrubs would be more desirable in a greenhouse. Indeed it is almost hardy enough to bear our ordinary winters abroad. It blossoms in the early spring, always copiously when it blossoms at all, and diffuses a powerful and delightful fragrance while it lasts. It is propagated by grafting on the *Daphne Laureola*, or by cuttings. To have the more chance of flowers, it is best to keep a great number of plants.

We are told in the *Hortus Kewensis* that this plant was introduced to our gardens in 1771 by B. Torin, Esq. It is a native of China and Japan. When first known here it was taken for *D. indica*, and so called; but that mistake was set right by a little examination, and the name of Thunberg adopted. Such corrections often make the ignorant complain of changes of names. It is much to be wished that botanists, whose authority ought to be decisive,

would never give more just cause for such complaints. Erroneous or bad names must and ought to be corrected.

This shrub is smooth, branched, 2 or 3 feet high, with numerous alternate laurel-like leaves. Flowers in dense bracteated terminal clusters, white, often reddish in decay, lasting for 2 or 3 weeks. Berries never ripened in England. Very often the stem becomes broad or fasciculated, producing an inordinate quantity of flowers.

a a flower cut open to show its internal parts.

Calycis nunc. Corolla 4-lobis, nuda, at the mouth, perianthium. Stamina in 2 rows, within the tube. Berry sessile, with 1 seed. Stigma capitate, almost sessile.
Flowers sessile, in terminal clusters. Leaves ovate, alternate, smooth.
Daphne odor. Thunb. Jap. 159. M. A. Koenig. 2. 26. Banks. de Koenig. 4. 18.

If this species of *Daphne* were constant in producing flowers, few shrubs would be more desirable in a greenhouse. Indeed it is almost hardy enough to bear our ordinary winter abroad. It blossoms in the early spring, always copiously when it blossoms at all, and diffuses a powerful and delightful fragrance while it lasts. It is propagated by grafting on the *Daphne Laureola*, or by cuttings. To have the more chance of flowers, it is best to keep a great number of plants.

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Lamium garganicum

Sept. 1. 1805. Published by Jas. Sowerby, London.



Passiflora peruviana
The fruit is a large, globose berry.

TAB. 48.

LAMIUM garganicum.

*Woolly Archangel.**DIDYNAMIA Gymnospermia.*

Calyx 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

Leaves heart-shaped, downy. Corolla swelling underneath; its tube straight; orifice with two teeth at each side.

Lamium garganicum. *Linn. Sp. Pl.* 808. *Ait. H. Kew. v.* 2. 297.

L. garganicum subincanum, flore purpurascente, cum labio superiori crenato. *Till. Pis.* 93. *t.* 34. *f.* 1.

A HARDY ornamental plant, but perhaps too like our wild Dead Nettles to be a general favourite. It grows however without trouble, and flowers copiously in May. Few gardens possess this plant, which is a native of Italy, and seems to have been discovered by the celebrated Micheli. It has grown in Chelsea garden ever since Miller's time, who probably obtained it from its discoverer.

Root fibrous, perennial. Stems numerous, a foot and half high, roundish with 4 angles, thick and juicy, rather hairy. Leaves heart-shaped, crenate, soft and downy, of a greyish hue. Flowers numerous, large, elegantly striped and variegated with pale purple and white; their orifice much inflated, and furnished with only 2 teeth at each side, one of which is rather obsolete. Antheras white, with orange pollen.

a calyx and bractea. *b* corolla and stamens. *c* the same expanded. *d* germen and style.

TAB. 48.

LAMILUM garganicum.

Woolly Archangel.

DIDYMYA Gynopetala.

Calyx 5-lobed, its teeth awl-shaped, spreading. Upper lip
of the corolla undivided, vaulted; lower 2-lobed; orifice
inflated, toothed at each side.

Leaves heart-shaped, downy. Corolla swelling underneath;
its tube straight; orifice with two teeth at each side.

Lamium garganicum. Ann. Sp. Pl. 808. Mr. H. Kew. v. 2.

297.

L. garganicum subincanum, flore purpureo, cum labio
superiori crenato. Th. Pl. 33. t. 34. f. 1.

A HARDY ornamental plant, but perhaps too like our wild Dead
Nettle to be a general favourite. It grows however without trouble,
and flowers copiously in May. Few gardens possess this plant,
which is a native of Italy, and seems to have been discovered by the
celebrated Micheli. It has grown in Chelsea garden ever since
Miller's time, who probably obtained it from its discoverer.

Root fibrous, perennial. Stems numerous, a foot and half high,
roundish with 4 angles, thick and juicy, rather hairy. Leaves
heart-shaped, crenate, soft and downy, of a greenish hue. Flowers
numerous, large, elegantly striped and variegated with pale purple
and white; their orifice much inflated, and furnished with only 2
teeth at each side, one of which is rather obsolete. Anthers white,
with orange pollen.

a calyx and bracts. A corolla and stamens. c the same ex-
panded. d germin and style.



Uvularia perfoliata

Sept. 1. 1806. Published by T. & S. J. Sowerby, London.

TAB. 49.

U V U L A R I A perfoliata.

*Pale Perfoliate Uvularia.**HEXANDRIA Monogynia.*

Corolla of 6 upright petals. *Nectary* a chink in the base of each. *Filaments* very short.

Leaves perfoliate, elliptical, obtuse. *Corolla* bell-shaped, rough on the inside. *Antheras* pointed.

Uvularia perfoliata. *Linn. Sp. Pl.* 437. *Ait. H. Kew. v.* 1. 434.

A NATIVE of North America, said to have been introduced among us by the celebrated Peter Collinson in 1734. It thrives well in moist shady gardens, flowering in May. We have received it from Chelsea garden.

Root perennial, of several fleshy fibres. Stem herbaceous, annual, erect, about a foot high, round, smooth, leafy, often a little branched or subdivided. Leaves alternate, perfoliate, elliptical, entire, obtuse with a slight point, ribbed, smooth on both sides, paler beneath, flat, not waved, at the base. Flowers terminal, solitary, pendulous, on short stalks. Petals scarcely above half an inch long, of a very pale greenish buff-colour, their inner side rough with yellowish protuberances. *Antheras* tipped with a small point or awn. *Nectary* very small and linear.

a, a inner side of the petals. *b, b* stamen. *c* germen and style.
D stigma.

TAB. 49.

UVULARIA perfoliata.
Pale Perfoliate Uvularia.

HEXANDRIA Monogynia.

Corolla of 6 upright petals. Nectary a chink in the base of each. Filaments very short.

Leaves perfoliate, elliptical, obtuse. Corolla bell-shaped, rough on the inside. Anthers pointed.

Uvularia perfoliata. Ann. Sp. Pl. 437. Ait. H. Kew. v. 1. 434.

A NATIVE of North America, said to have been introduced among us by the celebrated Peter Collinson in 1734. It thrives well in moist shady gardens, flowering in May. We have received it from Chelsea garden.

Root perennial, of several fleshy fibres. Stem herbaceous, annual, erect, about a foot high, round, smooth, leafy, often a little branched or subdivided. Leaves alternate, perfoliate, elliptical, entire, obtuse with a slight point, ribbed, smooth on both sides, paler beneath, flat, not waved, at the base. Flowers terminal, solitary, pendulous, on short stalks. Petals scarcely above half an inch long, of a very pale greenish buff-colour, their inner side rough with yellowish protuberances. Anthers tipped with a small point or awn. Nectary very small and linear.

a, a inner side of the petals. b, a stamen. c, germen and style.

D. elegans.



Uvularia flava

Sept. 1. 1805. Published by Jas. Sowerby, London.



Strophanthus flammula
var. *flammula*

TAB. 50.

UVULARIA flava.

*Small Yellow Uvularia.**HEXANDRIA Monogynia.*

Corolla of 6 upright petals. *Nectary* a chink in the base of each. *Filaments* very short.

Leaves perfoliate, elliptic-oblong, bluntish, waved at the bottom.

Corolla tapering at the base, rough on the inside. *Antheras* pointed.

Uvularia caule perfoliato. Gron. Virg. 51, ex descr. claytonianâ.

THIS has also been brought from North America to our gardens, where it flowers in May or early in June.

Many persons suppose it a variety of the plant in our last plate, but we presume them to be distinct, though it is very difficult to express a specific distinction. As the whole genus is at present a mass of confusion in authors, the species not well defined and the synonyms glaringly misapplied, we cannot at once expect to elucidate the subject completely.

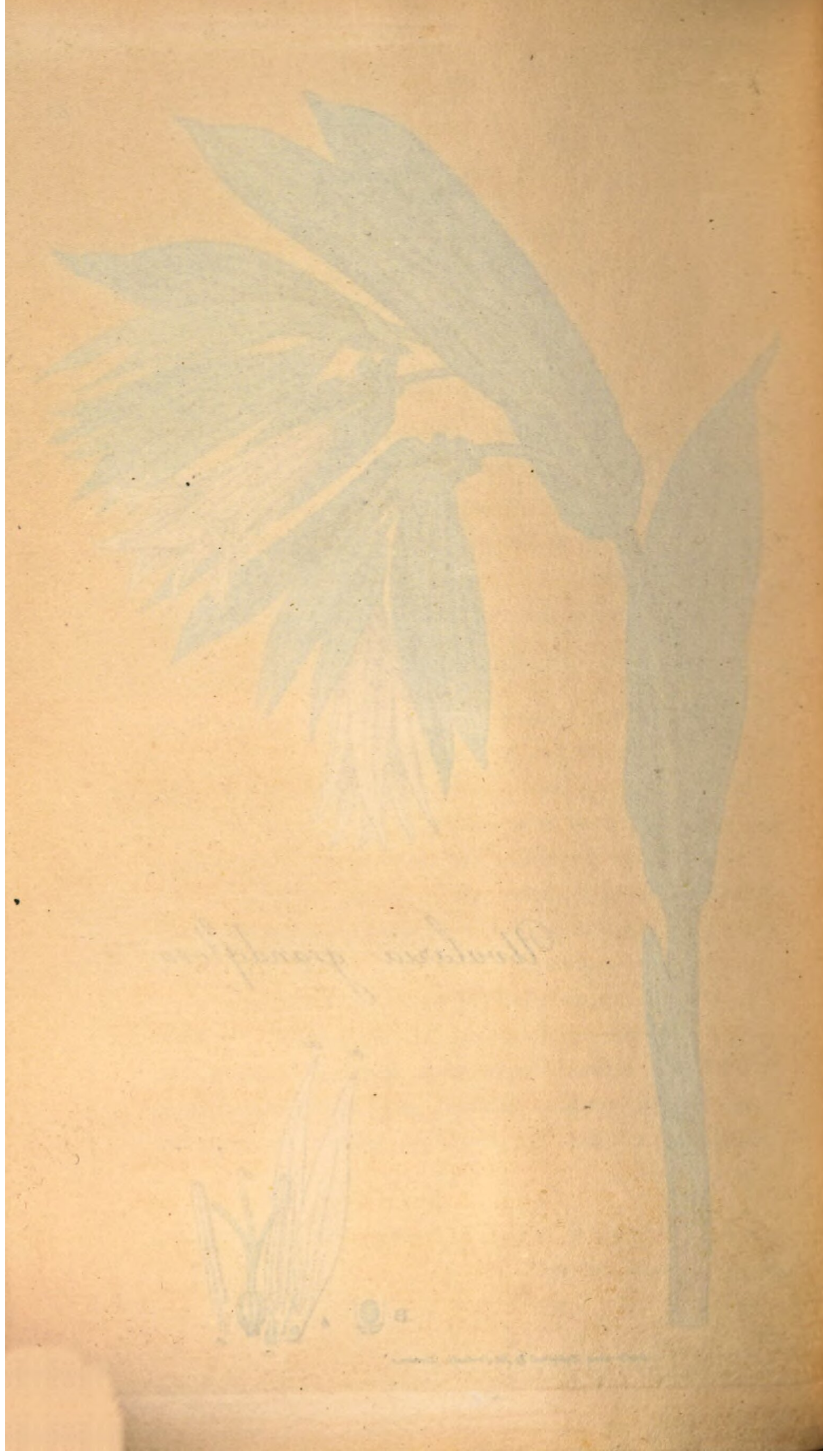
In this the leaves are rather oblong, and much inclined to be revolute. Their base which surrounds the stem is waved. The flower is remarkably different, larger, more taper and elongated, with narrower sharper petals, an inch long, yellow, with orange-coloured tubercles on the inside. The point of the anthera is also longer and more conspicuous.

a, a, a inner side of petals. *l, B* stamen with its anthera and point. *c* germen and style.



Uvularia grandiflora.





TAB. 51.

U V U L A R I A grandiflora.

*Large Yellow Uvularia.**HEXANDRIA Monogynia.*

Corolla of 6 upright petals. *Nectary* a chink in the base of each. *Filaments* very short.

Leaves perfoliate, oblong, acute. Petals smooth on both sides. Antheras almost pointless. Nectary roundish.

Polygonatum ramosum flore luteo majus. Cornut. Canad. 38. t. 39?

Sigillum indicum flore luteo. Stap. in Theophr. 1067. f. 3.

RECEIVED from North America by Messieurs Lee and Kennedy, in whose garden at Hammersmith we have observed it for three years past, flowering in the beginning of May.

It differs from our *U. flava*, *t. 50*, in being nearly twice as large, the leaves much more oblong, more undulated at the base, and more pointed at the end. The flowers are of a brighter yellow. Petals much above an inch long, smooth on both sides, more conspicuously ribbed. Nectary roundish. Antheras longer and more linear, either quite destitute of any point, or with merely the rudiments of a small awn.

It thrives with the same kind of treatment as the two preceding, but flowers nearly a month earlier.

We find the lowermost flower commonly with only 5 petals, 5 stamens, and 2 stigmas. Bodæus à Stapel, in the place above quoted, describes his plant as having 5 petals.

a, *a* petals. *b*, *B* nectary. *c*, *c* stamens. *d* germen and style.



Uvularia sessilifolia



TAB. 52.

U V U L A R I A sessilifolia.

Sessile-leaved Uvularia.

HEXANDRIA Monogynia.

Corolla of 6 upright petals. *Nectary* a chink in the base of each. *Filaments* very short.

Leaves sessile. Petals smooth. Nectary oblong.

Uvularia sessilifolia. *Linn. Sp. Pl.* 437. *Willden. Sp. Pl.* v. 2. 95. *Donn. Cant.* 58.

DRAWN on the 3d of June 1805 in the nursery of Messieurs Lee and Kennedy, who received it from North America. It is not mentioned in the *Hortus Kewensis*. Mr. Donn says it came into this country in 1791. Linnæus had his specimen from Kalm, and we find no further account of the species than what he has given, nor does it seem to be any where figured.

In size, and colour of the flower, this plant most accords with *U. perfoliata*, but in general habit it more resembles our *grandiflora*. From both it essentially differs in having sessile, not perfoliate, leaves, which are of an elliptic-lanceolate form, scarcely perceptibly downy beneath. The petals are ribbed, always 6, smooth on both sides. Nectary oblong. Antheras pointless.

It requires the same treatment as the two species above mentioned, and flowers with the *perfoliata*.

a outer petal. *b* inner petal. *c* germen and style, with 2 of the stamens.

TAB. 32.

UVULARIA sessilifolia.

Sessile-leaved Urticaria.

HEXANDRIA Monogynia.

Corolla of 6 upright petals. Nectary a chink in the base of each. Filaments very short.

Leaves sessile. Petals smooth. Nectary oblong.

Urticaria sessilifolia. Ann. 2p. Pl. 427. Willden. 2p. Pl. v. 2. 88. Donn. Cat. 28.

DRAWN on the 24 of June 1805 in the country of Missouri. Lee and Kennedy, who received it from North America. It is not mentioned in the Florae Kewensis. Mr. Donn says it came into this country in 1791. Linnæus had his specimen from Kalm, and we find no further account of the species than what he has given. nor does it seem to be any where figured.

In size, and colour of the flower, this plant is well acquainted with U. parviflora, but in general habit it more resembles the grassy Urticaria. From both it essentially differs in having sessile, not pedicelled leaves, which are of an elliptic-lanceolate form, scarcely perceptibly downy beneath. The petals are ribbed, whereas in U. parviflora they are smooth on both sides. Nectary oblong. Filaments none.

It produces the same fruit as the two species above mentioned, and flowers with the Urticaria.

a single petal. 6 inner petals. 6 outer petals and style and 2 of the



Sarracenia adunca



Lilium candidum

TAB. 53.

SARRACENIA adunca.

Hook-leaved Side-saddle-flower.

POLYANDRIA Monogynia.

Petals 5. Outer Calyx of 3 leaves; inner of 5. Capsule of 5 cells, sheltered by the permanent shield-like stigma.

Leaves cylindrical, the length of the flower-stalk; with a roundish inflexed appendage.

Sarracenia minor. Walt. Carol. 153?

THIS has been for some years cultivated with success in the stove of Messieurs Lee and Kennedy; for though a native of Carolina, it cannot be kept in health in England without great care. It flowers in July, and is perennial.

It is most allied to *S. flava*, see *Curt. Mag. t. 780*, but differs widely in the form and position of the appendage to the leaf, which in our plant is roundish, vaulted, and always hooked or incurved, so as to cover the orifice beneath, and exclude rain. The tube of the leaf is narrower than in *flava*, and the lateral expansion broader. The flowers are smaller. We presume this may be *S. minor* of Walter; but as the name is uncertain and not expressive, we have chosen one which expresses the very essential character of the species, which we have often observed and never found to vary. The remarkable stigma of this genus is more like a pillion than a side-saddle.

A is a magnified stamen with its singularly-formed anthera.

TAB. 33.

SARRACENIA alabamica.

Hook-leafed Side-saddle-flower.

POLYANDRIA Monogynia.

Petal 2. Outer Calyx of 3 leaves; inner of 2. Capsule
of 2 cells, sheltered by the permanent shield-like stigma.
Leaves cylindrical, the length of the flower-stalk; with a
roundish inflexed appendage.

Sarracenia minor. Wall. Carol. 1237.

This has been for some years cultivated with success in the stove
of Messieurs Lee and Kennedy; for though a native of Carolina, it
cannot be kept in health in England without great care. It flowers
in July, and is perennial.

It is most allied to *S. flava*, see *Gen. Mag.* t. 180, but differs
widely in the form and position of the appendage to the leaf, which
in our plant is roundish, vaulted, and always hooked or incurved,
so as to cover the orifice beneath, and exclude rain. The tube of
the leaf is narrower than in *flava*, and the lateral expansion broader.
The flowers are smaller. We presume this may be *S. minor* of
Walter; but as the name is uncertain and not expressive, we have
chosen one which expresses the very essential character of the
species, which we have often observed and never found to vary.
The remarkable stigma of this genus is more like a peltate than a
side-saddle.

A is a magnified stamen with its singularly-formed anther.



Oct 2



Chamaecrista nictitans

(L.) Greene

TAB. 54.

BESLERIA melittifolia.

*Balm-leaved Besleria.**DIDYNAMIA Angiospermia.*

Calyx in 5 deep segments. *Berry* roundish, of 1 cell, with many seeds.

Flower-stalks branched. Leaves ovate.

Besleria melittifolia. Linn. *Sp. Pl.* 862. Donn. *Cant.* 115.

B. melissæ Tragi folio. Plum. *Ic.* 36. t. 48.

WE were shown this plant by our worthy friend the late Mr. Lee of Hammersmith, for the first time, in 1789, when it was in flower in his stove. Mr. Donn therefore has erroneously marked 1793 as the year of its introduction. We have not observed it in any other collection. It is a native of South America, and flowers with us in June or July.

It is a low shrub of luxuriant growth and juicy texture. The stem is round, branched, downy. Leaves opposite, on long stalks, ovate, acute, crenate, decurrent, veiny, downy, pale beneath. Flower-stalks axillary, divided or somewhat umbellate, downy, with acute bractees at their subdivisions. Calyx-leaves ovate, slightly serrated. Corolla purple, with a straight tube, and spreading limb in 5 obtuse segments. Stamens and style shorter than the tube. The berry we have not seen.

This genus was named by Plumier in honour of Basil Besler, the editor of the unwieldy *Hortus Eystettensis*.

A dissection of the flower having been neglected at the time of the drawing, we can only give a general view of this rare plant.

TAB. 54.

BESTERIA melitensis.

Balm-leaved Besteria.

DIDYMYA (Lagotis)

Cover in 2 deep segments. Berry roundish, of 4 cell, with many seeds.

Flower stalks branched. Leaves ovate.

Besteria melitensis. From the IV. 862. Dorr. Cont. 115.

B. melitensis. From the IV. 862. Dorr. Cont. 115.

We were shown this plant by our worthy friend the late Mr. J. C. de Harnett, for the first time in 1875, when it was in flower in his store. Mr. Dorr has since been extremely kind to send us the rest of its introduction. It is a native of South America, and flowers with us in June or July.

It is a low shrub of luxuriant growth and leafy texture. The stem is round, branched, downy. Leaves opposite, on long stalks, ovate, acute, crenate, downy, beneath pale greenish. Flower stalks axillary, divided or racemose but umbellate, downy, with some bracts at their subdivisions. Calyx leaves ovate, slightly serrated. Corolla purple, with a straight tube, and spreading limb. It is a curious specimen. Stamens and style shorter than the tube. The berry we have not seen.

This genus was named by Planchon in honor of Louis Bester, the author of the widely known *Systême*.

A description of the flower having been neglected in the time of the drawing, we can only give a general view of the plant.



Melaleuca genistifolia

Oct. 1. 1805. Published by Jas. Sowerby, London.



Malva sylvestris
L.

TAB. 55.

MELALEUCA *genistifolia*.*Broom-leaved Melaleuca.*

POLYADELPHIA Polyandria.

Calyx 5-cleft, half superior. *Petals* 5. *Filaments* numerous, very long, united into 5 parcels. *Style* 1. *Capsule* of 3 cells.

Leaves scattered, lanceolate, sharp-pointed, three-ribbed, closely dotted. Flowers loosely scattered, on terminal branches. Filaments branched towards the extremity.

Melaleuca genistifolia. *Sm. Trans. of Linn. Soc. v. 3. 277.*

THIS species of *Melaleuca* was sent to Sir Joseph Banks from Port Jackson by the late Mr. David Burton. It is unknown in the gardens, but we have a drawing of it among those brought to England by Dr. White, which we have compared with our specimens. To this drawing the following account is annexed :

“ The White Tea Tree grows about 20 or 25 feet in height, in good soil and mostly near the water side. When in blossom it is nearly white. Flowers in November.”

The branches are slightly angular, smooth. Leaves scattered, on short foot-stalks, lanceolate, entire, sharp-pointed, scarcely half an inch long, marked with 3 obscure ribs, and sprinkled all over with minute resinous dots. They have an agreeable, but not strong, aromatic flavour. Flowering branches slightly downy. Flowers sessile, in alternate pairs, white. Claws of the stamens about as long as the petals (not twice as long) before they branch. Style hairy.

A a leaf. B calyx and style. C petal. D stamen. All magnified.

TAB. 35.

MELALEUCA geniculata.

Broom-leaved Melaleuca.

POLYADELPHIA Polyandra.

Calyx 5-lobed, half superior. Petals 5. Filaments numerous, very long, united into 5 parcels. Style 1. Capsule of 3 cells.

Leaves scattered, lanceolate, sharp-pointed, three-ribbed, closely dotted. Flowers loosely scattered, on terminal branches. Filaments branched towards the extremity.

Melaleuca geniculata. Sm. Trans. of Linn. Soc. v. 3. 277.

THIS species of Melaleuca was sent to Sir Joseph Banks from Port Jackson by the late Mr. David Burton. It is unknown in the gardens, but we have a drawing of it among those brought to England by Dr. White, which we have compared with our specimens. To this drawing the following account is annexed:

"The White Tree grows about 20 or 25 feet in height, in good soil and mostly near the water side. When in blossom it is nearly white. Flowers in November."

The branches are slightly angular, smooth. Leaves scattered, on short foot-stalks, lanceolate, entire, sharp-pointed, scarcely half an inch long, marked with 3 obscure ribs, and sprinkled all over with minute resinous dots. They have an agreeable, but not strong, aromatic flavour. Flowering branches slightly droop. Flowers sessile, in alternate pairs, white. Claws of the stamens about as long as the petals (not twice as long) before the branch. Style hairy.

A a leaf. B calyx and style. C petal. D stamen. All enlarged.

TAB. 56.

MELALEUCA *linarifolia*.*Toad-flax-leaved Melaleuca.*

POLYADELPHIA Polyandria.

Calyx 5-cleft, half superior. *Petals* 5. *Filaments* numerous, very long, united into 5 parcels. *Style* 1. *Capsule* of 3 cells.

Leaves opposite, linear-lanceolate, three-ribbed, closely dotted beneath. Flowers loosely scattered on terminal branches. Filaments pinnated.

Melaleuca linarifolia. *Sm. Trans. of Linn. Soc. v. 3. 278.*
Donn. Cant. 144.

Metrosideros hyssopifolia. *Cavan. Ic. v. 4. 20. t. 336. f. 1.*

DR. WHITE describes this as a large tree with very thick spongy bark which is used in New South Wales for tinder. The branches are round or slightly angular, smooth. Leaves opposite, nearly sessile, linear-lanceolate, entire, acute but not pungent, of a light green, 3-ribbed, covered with resinous dots beneath, smooth above. Flowers numerous, opposite, white or tinged with red. Stamens pinnated from the base to the summit. Style short, smooth. Fruit smooth, hemispherical.

Gærtner and Cavanilles, knowing many of the plants of this tribe by their fruit only, have rather rashly reduced them all, without discrimination, to the genus *Metrosideros*, from which *Melaleuca* differs in its stamens, and *Leptospermum* in its stigma and whole habit.

A leaf. B calyx and style. C petal. D stamen. E separate filaments. All more or less magnified. f fruit of the natural size.

TAB. 56.

MELALEUCA linearifolia.

Tooth-flax-leaved Melaleuca.

POLYADELPHIA Polyantha.

Calyx 5-lobed, half superior. Petals 5. Filaments numerous, very long, united into 5 parcels. Style 1. Capsule of 3 cells.

Leaves opposite, linear-lanceolate, three-ribbed, closely dotted beneath. Flowers loosely scattered on terminal branches. Filaments pinnated.

Melaleuca linearifolia. Sm. Trans. of Linn. Soc. v. 3. p. 278. Don. Cat. 144.

Melaleuca linearifolia. Cavendish. Cat. v. 4. p. 286. A. 1.

DR. WHITE describes this as a large tree with very thick spongy bark which is used in New South Wales for timber. The branches are round or slightly angular, smooth. Leaves opposite, nearly sessile, linear-lanceolate, entire, acute but not pungent, of a light green, 3-ribbed, covered with resinous dots beneath, smooth above. Flowers numerous, opposite, white or tinged with red. Stamens pinnated from the base to the summit. Style short, smooth. Fruit smooth, hemispherical.

Gentner and Cavendish, knowing many of the plants of this tribe by their fruit only, have rather easily reduced them all, without discrimination, to the genus Melaleuca, from which Melaleuca differs in its stamens, and its appearance in its young and whole habit.

A leaf. B calyx and style. C petal. D stamen. E separate stamens. All more or less magnified. A fruit of the natural size.



Melaleuca linariifolia



Myrtus linearifolia

Myrtus linearifolia, L.



smooth, curved downwards, branched, each bearing 2, 3 or 4 flowers. Bractees solitary under each branch, lanceolate, acutely



Chelidonium majus

TAB. 57.

ROXBURGHIA viridiflora.

*Green-flowered Roxburghia.**TETRANDRIA Monogynia.*

Petals 4, spreading. *Filaments* lanceolate, keeled, bearing the *antheras* on their inside, crowned with an appendage.

Capsule superior, with 1 cell, 2 valves, and many *seeds*.

Roxburghia gloriosoides. *Roxb. Pl. of Coromandel*, v. 1. 30. t. 32?

ROOTS of this singular plant were sent by Dr. Roxburgh to Lady Hume, from the coast of Coromandel, some time since. Being cultivated in a stove, they flowered last April, for the first time in Europe.

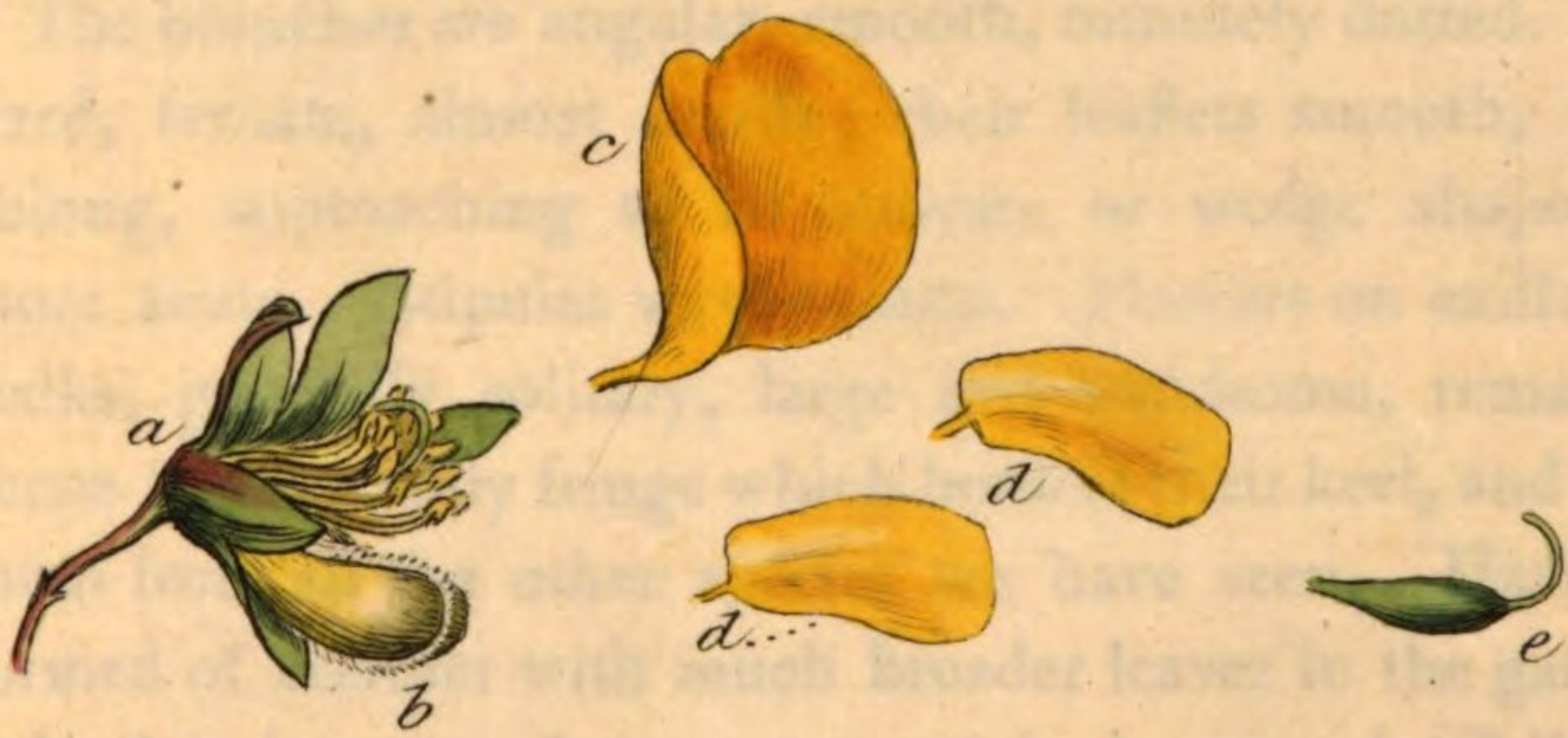
They were marked *Roxburghia gloriosoides*, and were presumed to belong to the very species figured and described by Dr. Roxburgh in his work on Coromandel Plants, vol. 1. t. 32. But on comparing his beautiful figure with our specimens, it seems not improbable that there may be more than one species of *Roxburghia*. There is no doubt however concerning the genus, which is very curious and distinct, and justly bears the name of its worthy discoverer. We have given our plant a new specific name, not only on account of the above uncertainty, but because the termination *oides* properly belongs to words derived from the Greek.

The roots are perennial, tuberous and fleshy. Stem climbing to the height of 12 or 15 feet, without tendrils, spiral, angular, smooth, branched, leafy. Lower leaves alternate to the height of about 5 feet, the rest opposite; all spreading, on smooth channelled foot-stalks, ovate, pointed, entire, smooth, thin and pliable, with about 7 or 9 ribs, and innumerable fine transverse veins. Stipulas none. Flower-stalks axillary, solitary, shorter than the leaves, smooth, curved downwards, branched, each bearing 2, 3 or 4 flowers. Bractees solitary under each branch, lanceolate, acutely

pointed. Flowers ascending, each on a short thick recurved partial stalk, not striking in colour, but very remarkable for their offensive smell, which is like that of rotten cheese, corrupted water, or the stinking morel, *Phallus foetidus*. Calyx none. Petals four, near two inches long, spreading, equal, regular, lanceolate, acute, many-ribbed, green, their ribs of a dull purple on the upper side. Filaments opposite to the petals and nearly as long, awl-shaped, fleshy; dull purple in their lower part; green above; furrowed on their inside, below the middle, so as to form a double cell. Anthera of two separate linear deep-violet lobes, one lodged in each cell of the filament, and crowned by one common lanceolate green furrowed appendage, like an abortive anthera, and which we dare not call (with Dr. Roxburgh) a nectary. The pollen is of a dark violet colour, and soon falls to the bottom of the flower, where it rolls about like quicksilver. Germen superior, small, sessile, ovate, green. Stigma sessile, roundish. The capsule of this genus, according to Dr. Roxburgh, consists of 2 concave valves, with one cell, and many upright, cylindrical, furrowed seeds, each on a stalk clothed with little vesicles. In his plate the flowers are but half the size of ours, on erect stalks; the petals of a tawny yellow; antheras yellow; leaves heart-shaped; differences which surely indicate a distinct species.

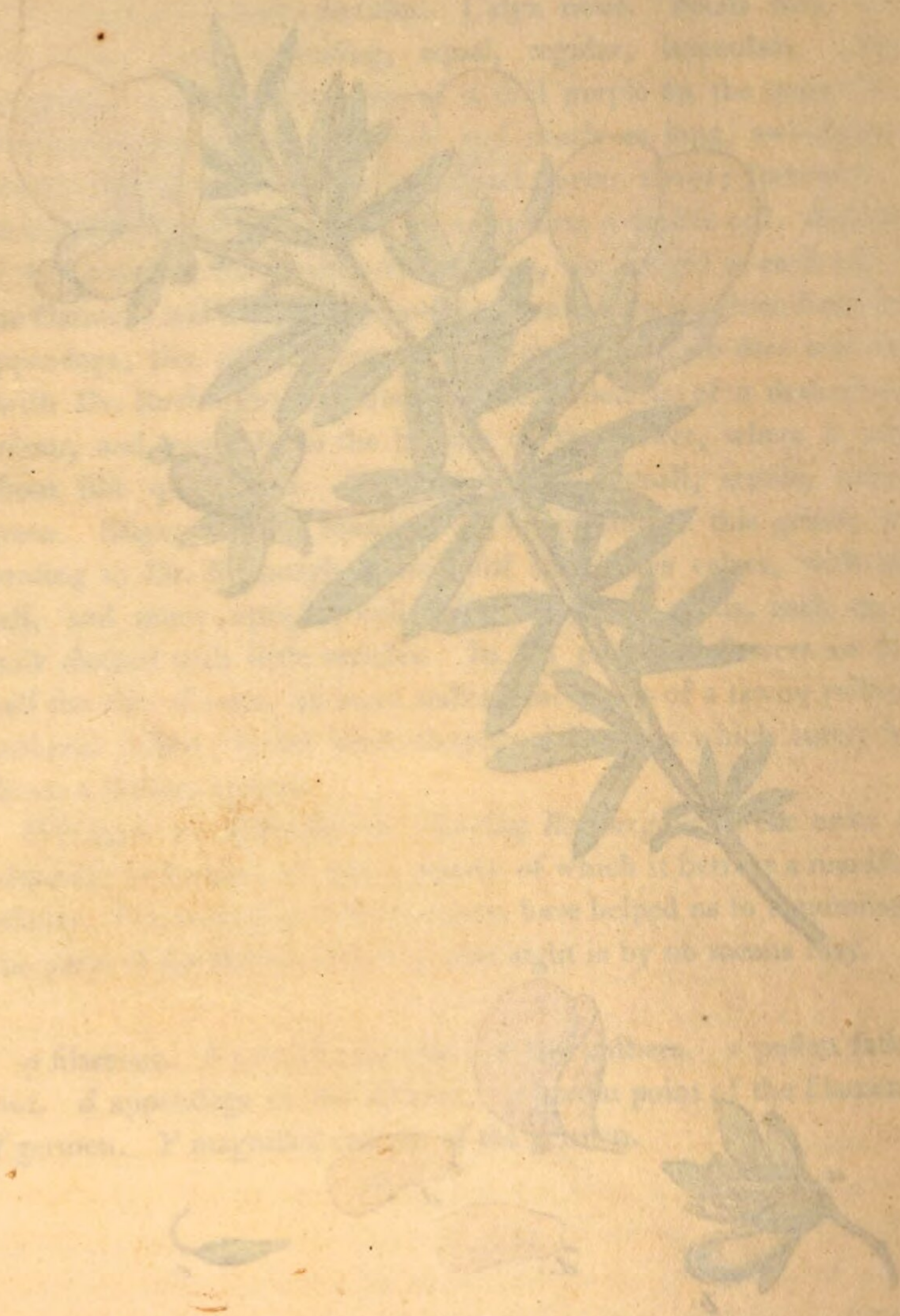
We have no difficulty in referring *Roxburghia* to the order of *Asparagi* in Jussieu, to many genera of which it betrays a manifest affinity. The analogies of these genera have helped us to denominate the parts of the flower, which at first sight is by no means easy.

a filament. *b* one of the lobes of the anthera. *c* pollen fallen out. *d* appendage to the anthera. *e* barren point of the filament. *f* germen. F magnified section of the germen.



Gompholobium fimbriatum

Nov. 1. 1805. Published by Jas. Sowerby, London.



Gemphidolium fructuosum

TAB. 58.

GOMPHOLOBIUM fimbriatum.

*Fringed Air-pod.**DECANDRIA Monogynia.*

Calyx bell-shaped, simple, in 5 deep segments. *Corolla* papilionaceous. *Stigma* simple, acute. *Pod* inflated, spherical, of 1 cell, with many seeds.

Leaves ternate, obovato-oblong, flat, veiny. Branches angular, smooth. Keel fringed.

Gompholobium latifolium. *Ann. of Bot.* v. 1. 505.

G. psoraleæfolium. *Salisb. Parad.* t. 6.

THIS, like the species figured in our 5th plate, is a native of New South Wales, near Port Jackson. It flowered this summer at Messrs. Lee and Kennedy's, from whence our figure was taken.

The branches are angular, smooth, minutely dotted. Leaves scattered, ternate, almost sessile; their leaflets smooth, veiny, entire, oblong, approaching to an obovate or wedge shape, sometimes more acute. Stipulas very minute. Flowers on axillary bracteated stalks, generally solitary, large and handsome, remarkable for a dense white woolly fringe which borders their keel, and distinguishes them from all the other species we have seen. Having been informed of another with much broader leaves in the gardens, I have judged it best to change my original name *latifolium*, (not yet become general so as to cause any confusion,) for one expressive of the essential character.

a calyx. *b* keel. *c* standard. *d, d* wings with their slender foot-stalks. *e* germen and style.

TAB. 58.

COMPTONIA

Fringed M. -

DECAANDRIA Monogamia.

Calyx bell-shaped, simple, in 5 deep segments. Corolla papery.
Hemianthus. Stigma simple, acute. Pet. inflated, spherical.
of 1 cell, with many seeds.
Leaves ternate, obovate-oblong, thin, shiny. Branches an-
gular, smooth. Keel trifid.
Comptonia fruticulosa. Michx. & B. Bot. v. 1, 302.
G. prostrata. Michx. & B. Bot. v. 1, 302.

This, like the species figured in our 2d plate, is a native of New
South Wales, near Port Jackson. It flowers the summer at
Messrs. Lee and Kennedy's, from whence our figure was taken.
The branches are angular, smooth, somewhat hairy, entire,
ternate, almost sessile; their leaflets smooth, shiny, entire,
oblong, approaching to an obovate or wedge shape, sometimes
more dentate. Stipules very minute. They are an exuberant
stalks, generally solitary, large and handsome, remarkable for a
dense white woolly fringe which borders their leaf, and distinguishes
them from all the other species we have seen. Having been in-
formed of another with much broader leaves in the garden, I have
judged it best to change my original name (Lupinus) for one
become general so as to cause any confusion, for the extensive of
the essential character.

a calyx, 5 petals, 5 stamens, & a pistil with 5 styles.
Stamens 5, separate, with 5 styles.
Vol. II.



Leptospermum ambiguum

Nov. 1. 1805. Published by Jas. Sowerby, London.



Phytolacca americana
L.

TAB. 59.

LEPTOSPERMUM ambiguum.

*Ambiguous Leptospermum.**ICOSANDRIA Monogynia.*

Calyx 5-cleft, half superior. *Petals* 5, with claws, generally longer than the stamens. *Stigma* capitate. *Capsule* of 4 or 5 cells. *Seeds* angular.

Leaves linear-lanceolate, recurved. *Calyx* nearly smooth; its segments leafy, lanceolate, naked. *Stamens* longer than the corolla.

Leptospermum ambiguum. *Sm. Trans. of Linn. Soc. v. 3. 264.*
Metrosideros corifolia. *Vent. Jard. de Malm. t. 46.*

A NATIVE of New South Wales, not uncommon in our green-houses, where it blossoms plentifully in the summer months. It differs from all the other species hitherto investigated of the most natural genus *Leptospermum*, in having the stamens longer than the corolla; but the capitate stigma most decidedly distinguishes this genus from *Metrosideros*: see *t. 42*.

The stem is shrubby, much branched; the branches downy. Leaves numerous, alternate, almost sessile, short, linear-lanceolate, entire, acute, more or less recurved and often roughish; aromatic when bruised. Flowers numerous, axillary, solitary, almost sessile, white, with numerous spreading white stamens, by which they are known at first sight. The leaves vary in breadth.

A magnified leaf. B calyx and style. C a stamen still more enlarged.



Deciduous
of the plant
leaves
Root
upright
round

A NATIVE of the
of the forest
in which it is collected
It seems not yet to be
the ample enumeration
Orchidaceae, where this
city Cypripedium comes
It, from which it differs
in the base of the petal
so large and marked
corolla imbricated.





Commersonia

TAB. 60.

CYMBIDIUM hyacinthinum.

*Hyacinthine Cymbidium.**GYNANDRIA Diandria.*

Nectary a lip concave at the base, without a spur. *Petals* 4 or 5, plain at their base. *Lid* vertical. *Flowers* sometimes reversed.

Root tuberous. Leaves lanceolate, many-ribbed. Flowers upright, racemose, on partial stalks. Lip beardless, furrowed, four-lobed.

A NATIVE of the island of Trinidad, for which we are obliged to our liberal friend Thomas Evans, Esq., of the East India House, in whose choice collection it first flowered in the autumn of 1803. It seems not yet to have been noticed by any author, not even in the ample enumeration of species in Dr. Swartz's Treatise on the *Orchideæ*, where this new genus is first established. In natural affinity *Cymbidium* comes nearest to *Dendrobium*, see t. 10, 11, and 12, from which it differs essentially in the want of a pouch or spur in the base of the petals; a character perhaps rather artificial, but in so large and intricate a family any mark which is not variable becomes important.

The root is tuberous and creeping, growing in the earth, not (like many of the genus) on trees, and throwing out long simple fibres. Stems several, erect, short, leafy, perfectly simple. Leaves sheathing, lanceolate, acute, plaited, with many longitudinal ribs. Cluster of flowers terminal, solitary, erect, simple, about a span long, bearing 4 or 5 large flowers on alternate partial stalks, each accompanied by a deciduous sheathing bractea. Petals spreading, purplish red. Lip about half their length; its centre longitudinally furrowed, and variegated with red and white; its border 4-lobed,

purple. Lid of the stamens moveable, partly concealed by the edges of the column.

This species ranges next to *Limodorum tuberosum* and *altum* of Linnæus, and would by him have been referred to that genus.

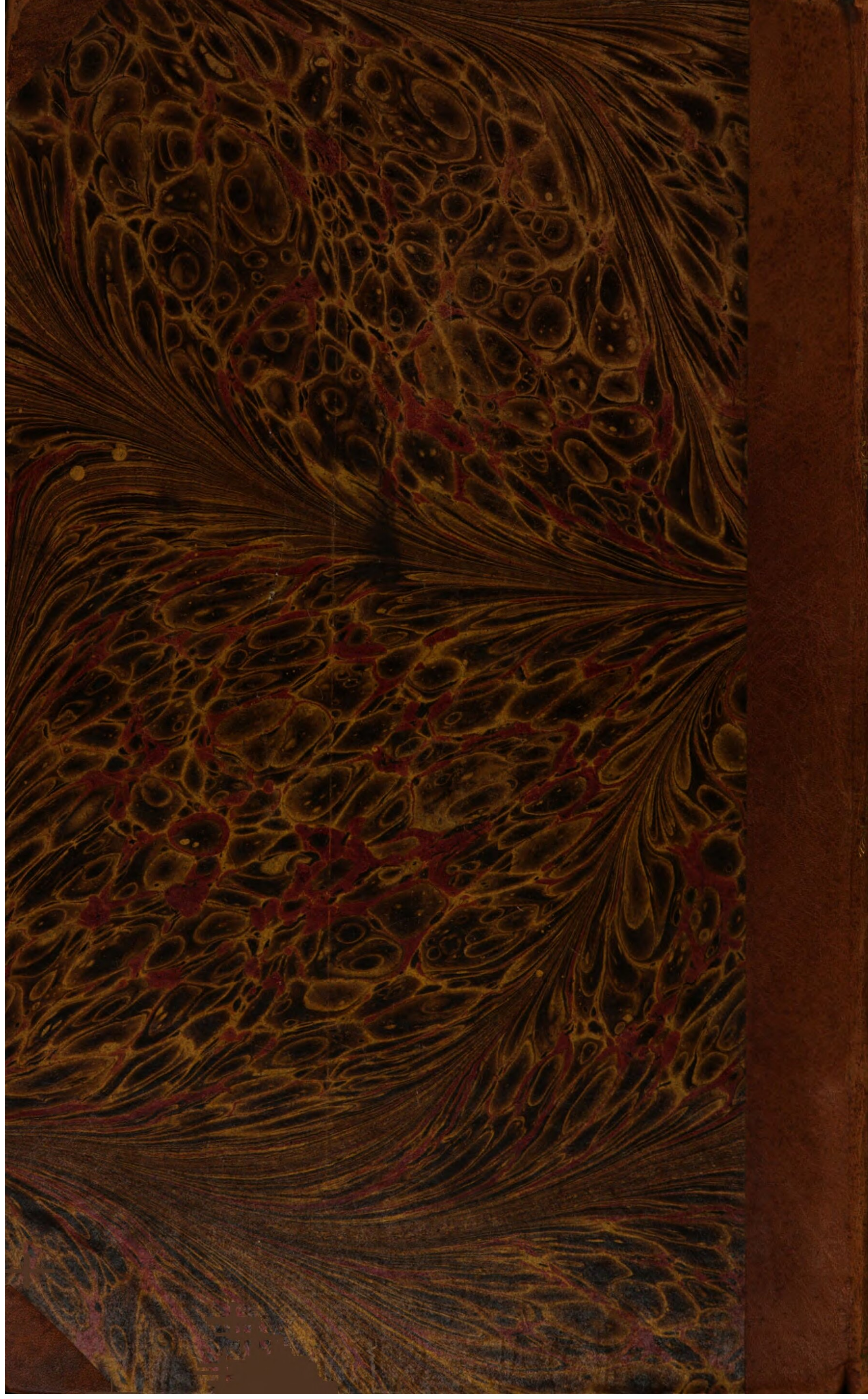
A shows the lip and column somewhat magnified: B summit of the column, with the lid and stamens still further enlarged.

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